NANN

CATALOG OF
SPECIAL CLAMPING DEVICES

Workpiece and tool clamping,
indexing units

tailormade clamping technology

Simon Nann GmbH & Co. KG – Catalog of special clamping devices EN 2019
Lindenstraße 8 | 78583 Böttingen | Germany | Phone: +49(0)7429 392-0 | Fax: +49(0)7429 392-11 | info@nann.de | www.nann.de

TAILORMADE CLAMPING TECHNOLOGY

Special designed and manufactured clamping devices are prerequisites for numerous machining tasks. Clamping devices engineering has been the central part of our company for a long time. Nann offers you experience and expert knowledge to meet the challenges in the field of special clamping devices easily.

The perfectly tailored special clamping devices by Nann fit in your processes in an optimum way, be it as original equipment for tool and machine construction or as complete system solutions for users in the most diverse sectors.

Your benefits:

- expert advice and state-of-the-art design and construction tools such as 3D-CAD
- unique know-how and a great wealth of experience
- construction designers and engineers working with permanent contact to practical applications
- in-house test area for all kinds of functional tests
- excellent price-performance ratio

Our portfolio

Nann offers clamping technology for workpiece and tool clamping as well as indexing units and spindle units.

Standard clamping devices available in great variety

Besides especially developed and manufactured special clamping devices, we provide you with a broad range of standard clamping devices in stock. In case we do not have the desired sizes in stock, our dynamic in-house production will ensure that you will receive the fitting product within a few days. You can find more information in our separate product catalog of standard clamping devices.

Worldwide network of distributors

Precision and quality are the prerequisites for the optimum application of clamping technology by Nann. Our efficient sales system ensures that you are able to make use and profit from this technology. Please find further up-to-date information on our worldwide network of distributors online at www.nann.de

Your provider of individual services

Special clamping devices make especially high demands. Depending on the specific application, many details have to be tailored precisely and optimized. You can convince yourself of our elaborate consulting culture.

Your contact person for technical question is Mr Grimm, phone +49(0)7429 392-34, email m.grimm@nann.de

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INNOVATION, PRECISION AND DELIVERY CAPACITY: SPECIAL CLAMPING DEVICES BY NANN

Clamping collets and chucks with family tradition for more than 80 years – long-standing experience and low employee fluctuation enable us to develop and manufacture innovatively and precisely, and at the same time guarantee our products' delivery capability on the highest level.

To ensure that you are provided with optimum clamping devices for your tasks in a very short time, decades of experience and know-how and state-of-the art manufacturing processes including our in-house heat treatment are decisive. Today's highly automated production requires more and more tailormade clamping devices which are adapted to workpieces, tools and machining in an optimum way. Nann manufactures products from simple special collets up to complex clamping and indexing units with short delivery times and high precision, for workpiece and tool clamping as well. It is an essential prerequisite for being successful in competition to provide innovation by using the latest technology, especially considering the rapid technical progress. Nann stands out due to high flexibility when it comes to work on special customer wishes. We will be pleased to give you advice based on our wealth of experience in the construction design of special clamping devices. Our flexible company organisation allows us to cater to your needs in an optimum way. Nann is your reliable partner: we are prepared for future challenges posed by the markets and technological developments. We are constantly broadening our range of products to be able to offer you comprehensive solutions in the field of clamping technology.

We offer:

- various services such as internal grinding, eroding, vulcanizing, coating etc.
- clamping devices for workpiece clamping and tool clamping as well
- special collets based on stock collets
- special collets on customer demand or based on in-house designs
- expanding collets, special clamping sleeves
- special collet chucks for external or internal clamping
- multiple clamping devices
- indexing units
- spindle units

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This catalog is valid as of June 2019. Technical modifications reserved.

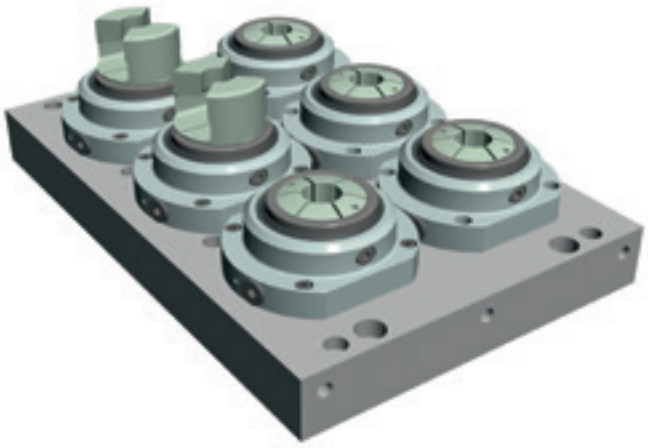
FLEXIBLE CLAMPING DEVICES WITH HIGH REPEAT ACCURACY FOR WORKPIECE CLAMPING

Modern production requires clamping fixtures with flexibility and repeat accuracy. Each specific application places different demands on the clamping device. There is no fixture that can cover all requirements perfectly. especially where precision is concerned, Nann makes no compromises.

With our own developments as well as with clamping fixtures based on the experiences of our customers, we cover the needs of the entire workpiece clamping sector. Alongside standardized collets and collet chucks our main focus is on the production and also the design of customized special solutions in accordance with your production requirements. The manufacture of quality products, combined with a high degree of flexibility is our highest priority. We offer our customers objective consulting geared towards special areas of application. Even with these special solutions we guarantee you the customarily high Nann quality and short delivery times.

We offer:

- special collets based on standard collets
- pure special collets
- collet chucks for external clamping
- collet chucks for internal clamping, expanding mandrels
- multiple clamping devices



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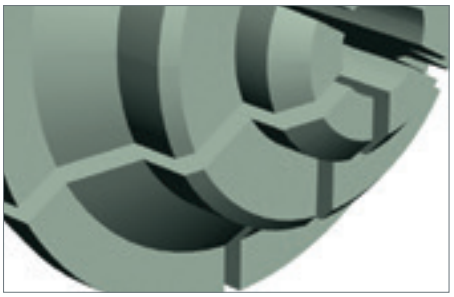
SPECIAL COLLETS BASED ON STANDARD COLLETS

Description:
Suitable solutions through reliable development: Nann manufactures a variety of special collets based on standard collets, regardless of whether this involves deadlength collets, drawback collets or internal clamping sleeves. The main dimensions of deadlength and drawback collets developed by Nann correspond precisely to the dimensions of the relevant standard collet and can usually be installed in the same fixture. Our in-house development, the many ready-processed collets and the proven warehousing logistics enable us to provide you with exactly the clamping technology solution you require within a few weeks.

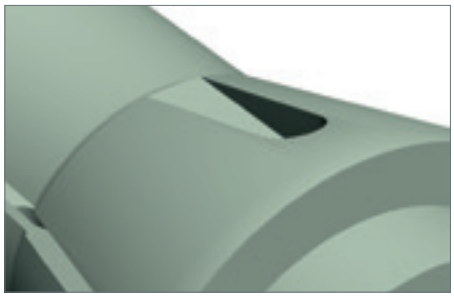
We manufacture:
- collets with special grooves in the head or shaft
- collets with cross-holes or milled cutouts, etc.
- collets with special slots, e.g. slanted slots, asymmetrical slots, with the number of slots depending on the application (e.g. twofold or multiple slots)
- collets with double bore
- collets with special profiled bored bores in the clamping bore
- collets with eccentric clamping bore
- collets with cylindrical front part
- collets with conical front part (longnosed collets)
- collets with shortened front part (shortnosed collets)
- collets with hard-metal insert
- collets with replaceable jaws
- stainless collets
- collets with end stops
- collets with built-in workpiece feed device

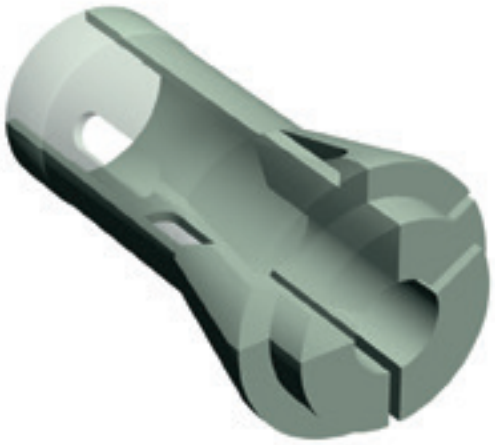


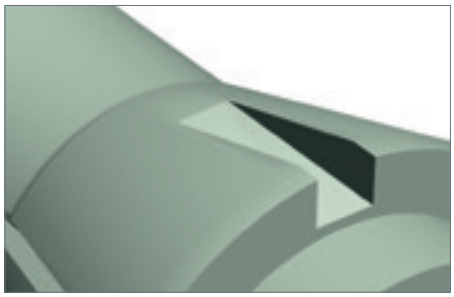
COLLETS WITH SPECIAL GROOVES

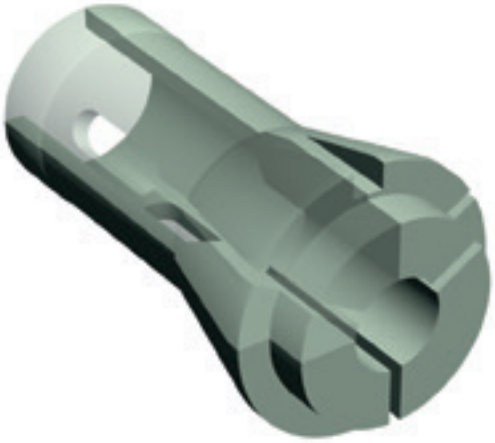
Description:
Sophisticated solutions for individual tasks: Nann offers collets with special grooves regardless of whether deadlength or drawback collets are involved. These special grooves can be applied to the head as well as the shaft of the collet. They differ from standard grooves in terms of width, depth or groove-shape as well as in their position on the collet. These grooves are retrofitted into stock collets according to your requirements or integrated into new products.

Don't hesitate to contact us. We will be glad to provide tailor-made clamping devices for your requirements.









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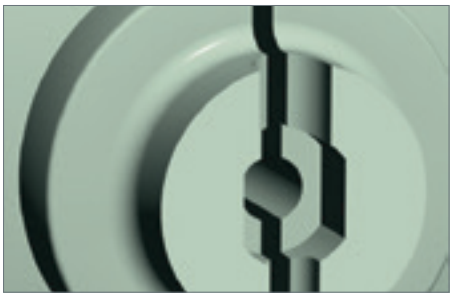
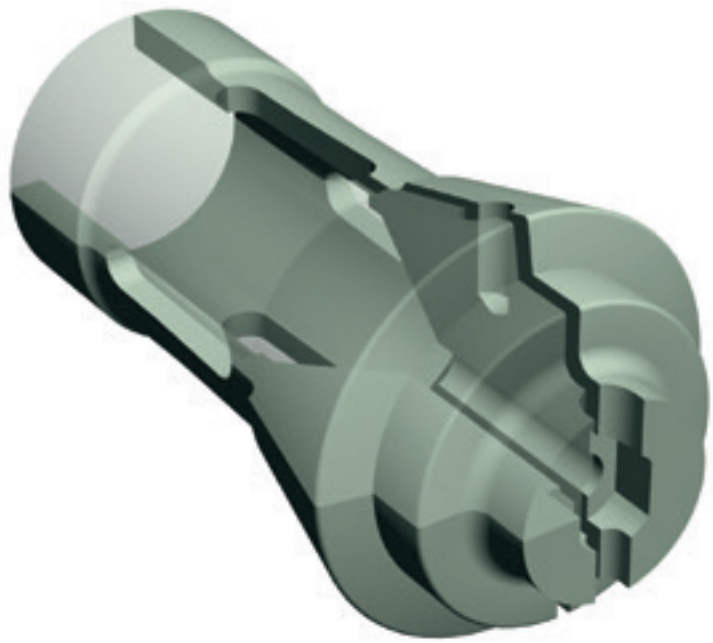
COLLETS WITH SPECIAL SLOTS

Description:
Purely special design on customer demand: Whatever type of collet is involved, Nann supplies collets with special slots. Slanted slots are very often used when workpieces with profiled bored bores need to be clamped. The slanted slots on the collet prevent the edges of the clamped profiled bore from getting stuck in the slots of the collet, ensuring that the workpiece is securely clamped. In certain application scenarios a work-piece with toothed wheelwork can also be clamped using a slanted-slot collet. Here, too, the slanted slot prevents the toothed wheelwork from getting stuck in the collet slots. Alongside collets with slanted slots Nann also produces collets with slot numbers that differ from the standard collet, or collets with asymmetrical slots.

Bore patterns:
- smooth
- grooved
- or according to customer request

Don't hesitate to contact us. We will be glad to provide tailor-made clamping devices for your requirements.

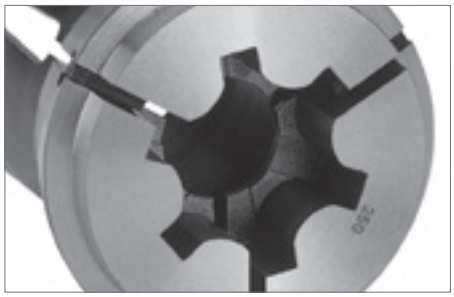


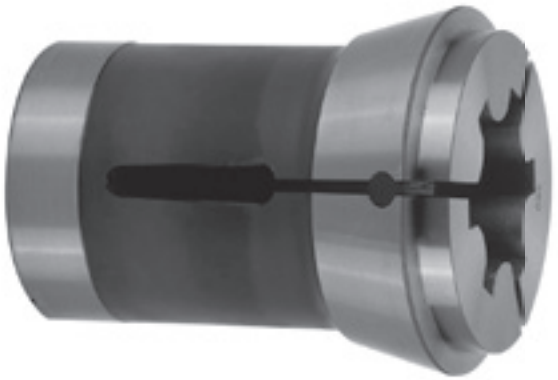


COLLETS WITH SPECIAL PROFILED BORED BORES, DOUBLE BORE

Description:
Pure special design on customer demand: no matter which type of collet, we are able to manufacture collets with special profiles. For each different workpiece the collet is produced individually as a pure special collet or can be reworked from a standard collet from stock. These profiled bored bores are normally eroded. The profiled bore can be attached as a profiled through bore in order to clamp bar material. We also manufacture offset profiled bores or profiled bored bores with end stops integrated in the collet.

Bore pattern:
- smooth

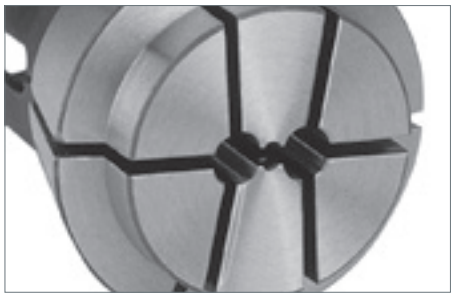


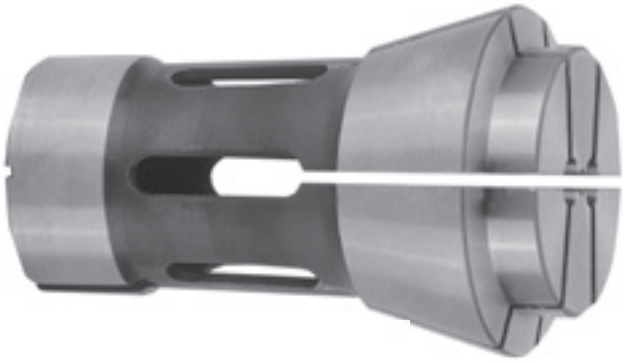


Description:
Under certain conditions it is possible to clamp two workpieces in one collet. These collets are given special slots which ensure the workpieces are securely clamped. These collets are specially made and manufactured according to customer preferences.

Bore pattern:
- smooth

Don't hesitate to contact us. We will be pleased to provide tailor-made clamping devices for your requirements.





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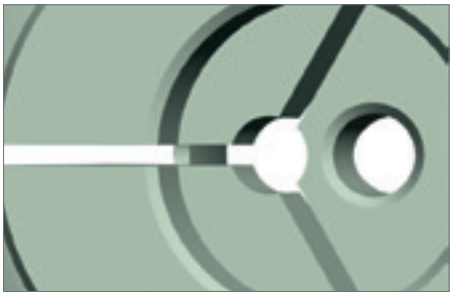
COLLETS WITH ECCENTRIC CLAMPING BORES

Description:
Depending on the workpiece that needs clamping we are able to manufacture collets with eccentric clamping bores. For each workpiece the collet is manufactured as a one-off special collet, or a standard collet from stock can be converted.

The eccentric clamping bore is either coordinate ground or eroded. The clamping bore can be applied as a through bore, in order to clamp bar material. We also manufacture offset bores or bores with end stops integrated in the collet.

Bore pattern:
- smooth

Don't hesitate to contact us. We will be glad to provide tailor-made clamping devices for your requirements.



COLLETS WITH FRONT PARTS

Description:
Whether deadlength or draw-back collets are involved, we supply collets with front parts.

- cylindrical front part
- tapered front part
- extended head, e.g. carpenter's nippers

Bore patterns:

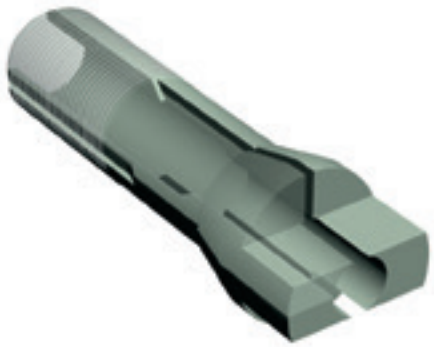
- smooth or grooved
- according to customers' wishes

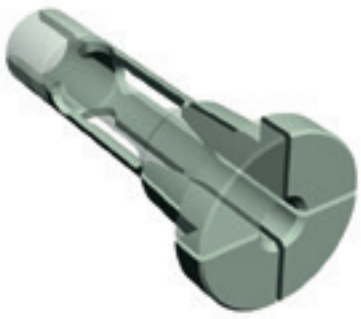
Collets with front parts are very frequently used to support the workpiece requiring clamping, and to prevent disruptive contours with the collet and the chuck during processing.

In the case of collets with front parts, make sure not only that the workpiece to be clamped is clamped in the front part of the collet, but also that the clamping length fits the taper of the collet, otherwise the accuracy becomes markedly worse and the clamping force weakens. It is possible to integrate end stops into the collet at any time and, with workpieces that only need short clamping, to support the collet in the rear section of the bore, since during clamping of short workpieces the clamping bore tends to widen towards the front and only clamp effectively in the rear section.

If very high clamping forces are needed, this can result in the collet fracturing, either at the front part or the area around the spring. This is why these collets are frequently designed with reinforced springs, in order to prevent possible collet rupture in this region.

Don't hesitate to contact us. We will be glad to provide tailor-made clamping devices for your requirements.





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COLLETS WITH JAWS

Description:
Whether deadlength or draw-back collets are involved, we supply collets with front parts. Collets with front parts are frequently used to prevent disruptive contours on the workpiece. These front parts are usually screwed into the clamping bore and can be changed by the customer when worn.

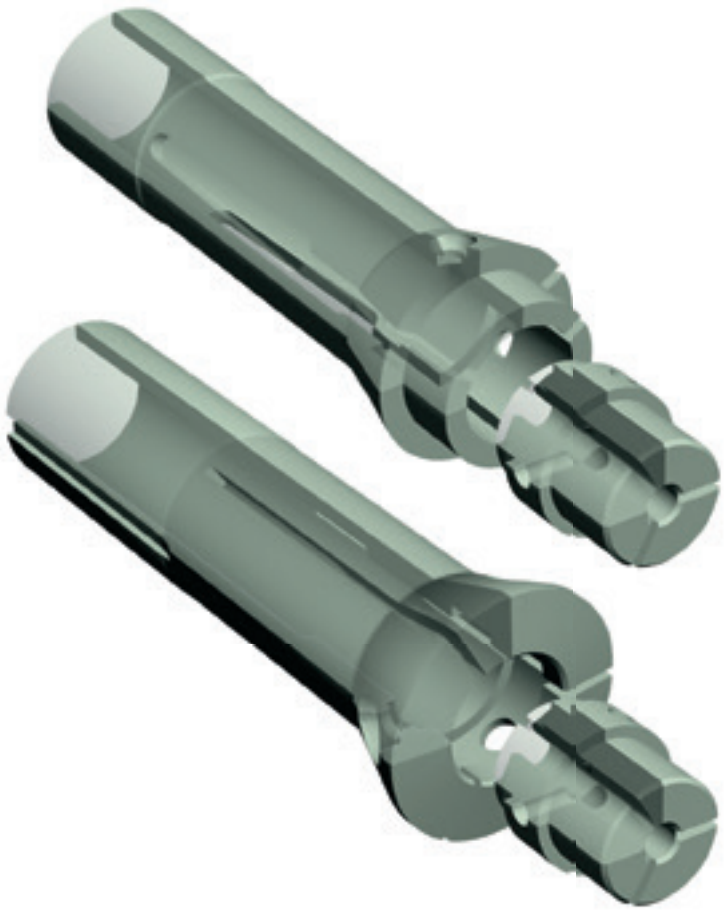
We manufacture jaws from:
- polyamide
- brass
- aluminium

Note that when jaws are used, the amount of wear in the clamping bore is higher than when a collet without jaws is used.

Bore pattern:
- smooth

Fixing of jaws:
- with collar, with radial screws
- with collar, with axial screws
- without collar, with radial screws
- without collar, with axial screws

Don't hesitate to contact us. We will be glad to provide tailor-made clamping devices for your requirements.

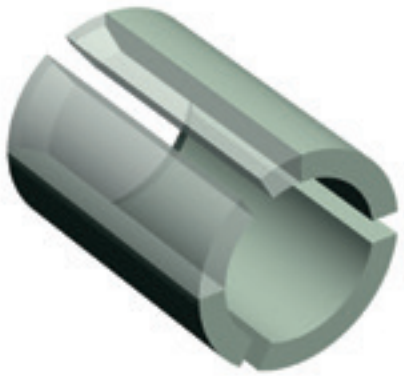


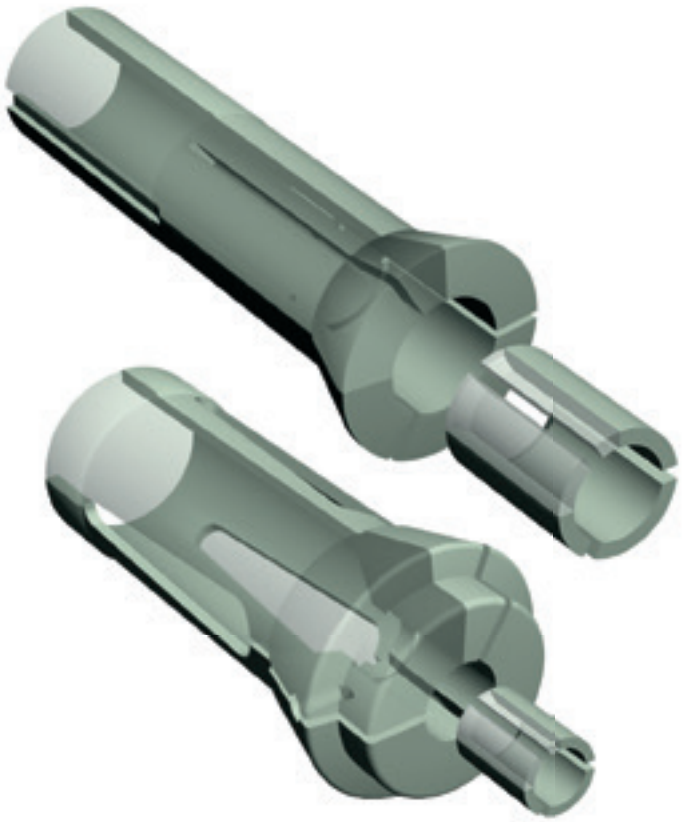
COLLETS WITH CARBIDE INSERTS

Description:
Carbide bushes can be integrated into deadlength or draw-back collets as well as feed fingers. The use of carbide bushes in the clamping bore results in a sharp reduction of wear. The carbide quality is selected in such a way that optimum clamping results are achieved with most materials.

Bore pattern:
- smooth

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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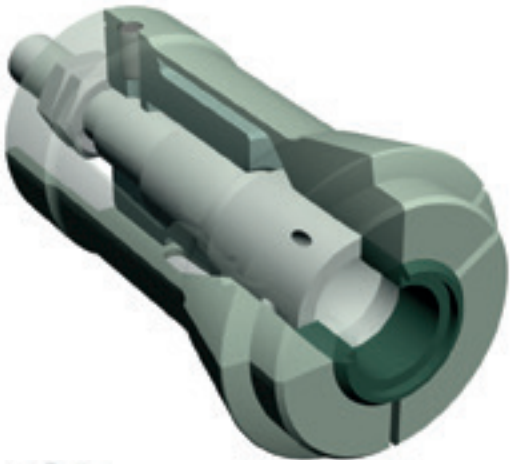
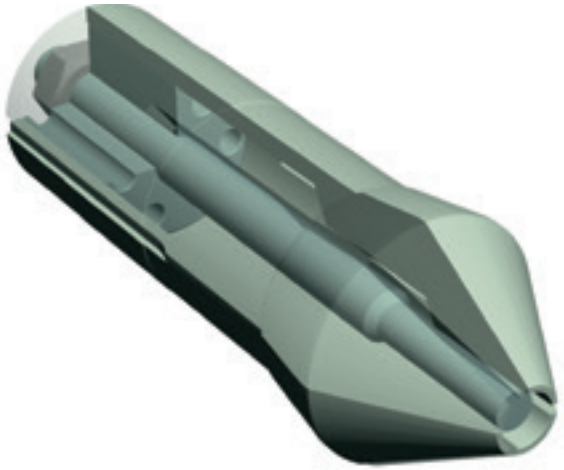
COLLETS WITH END STOP

Description:
Deadlength and draw-back collets with integrated end stops are needed very often. Depending on the application, a standard end stop from stock can be used, or a special end stop is required. To successfully integrate an end stop like this into the collet, the free bore is usually ground. The end stop, regardless of whether it is of fixed length or adjustable, is then fitted into the ground free bore and pinned. This type of end stop can, depending on the application, also be given a through bore for pressurised air to pass through. This can prevent dirt from penetrating inside the collet. In the same way, a sprung ejector can also be integrated into a collet.

Don't hesitate to contact us. We will be glad to provide tailor-made clamping devices for your requirements.

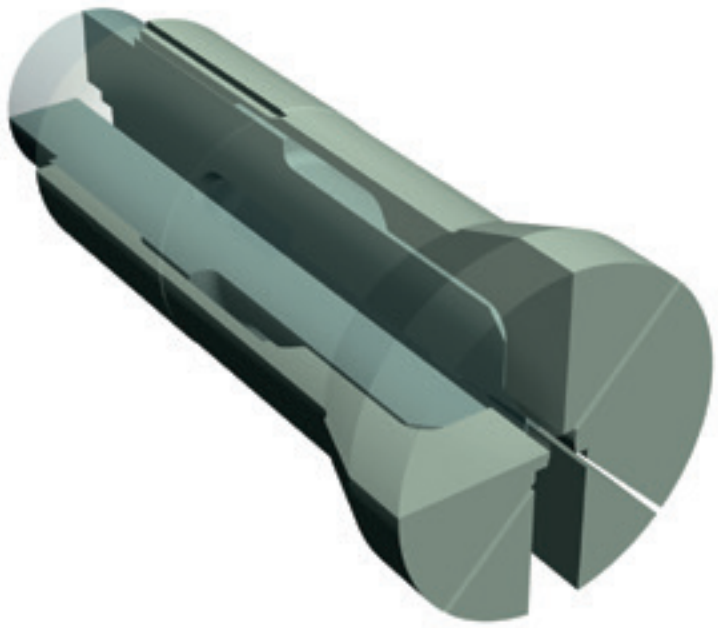




COLLETS WITH BUILT-IN WORKPIECE FEED DEVICE

Description:
In certain application scenarios a collet can be equipped with a workpiece feed device. As with the integration of an end stop, the free bore is ground out of the collet, and the workpiece feed device is fitted inside the ground free bore. The workpiece is inserted into the collet from the back, through the integrated feed.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



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COLLETS FOR RISMATIC ROTARY TRANSFER MACHINES

Description:
We provide collets for rotary transfer machines such as Hydromat and Rismatic in the customary Nann quality, with ultra-short delivery times. These collets can usually be reworked from collets in stock – contact us for details.

Application:
- for workpiece clamping
- no axial movement while chuck is clamping

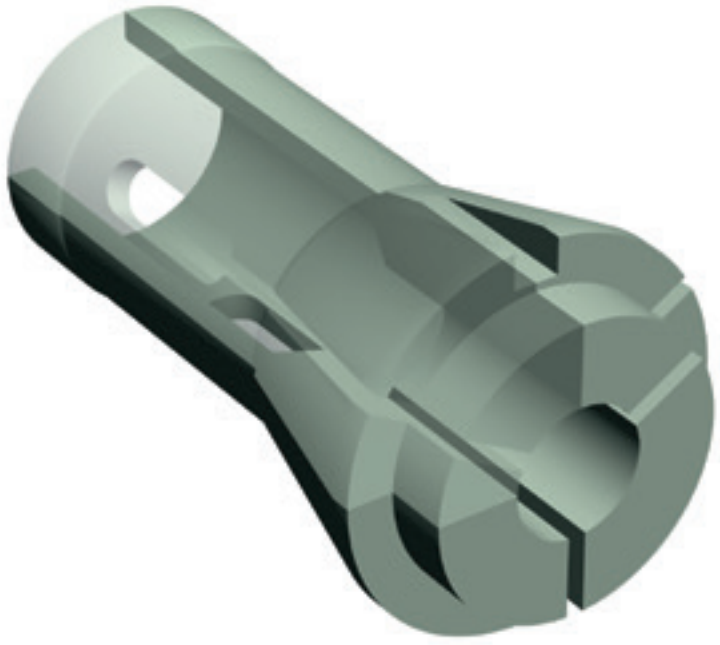
Bore pattern:
- smooth

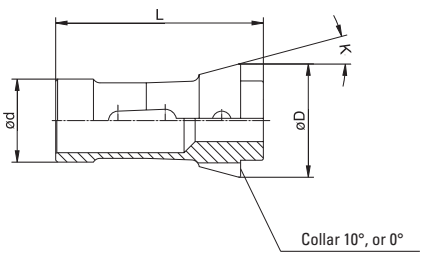
Hardness:
The collets are made from special spring steel. Where possible, by partial tempering, the hardness of the taper and the clamping bore is HRc 58 - 60. The shank guide and the sprung area have been tempered for spring hardness.

Special features:
- the complete set of collets is adjusted in its length
- all collets with high running concentricity
- profiled collets with cross keyways
- position of shank keyway in relation to profiled bore
- square, hex. and other profiled bores are eroded resulting in higher running concentricity

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.

Art.-no.	d	D	L	K°	thread	max. bore ◯
Ris-140 E	22	30	55	15	16	85
Ris-162 E	35	43	70	15	25	61,5





CLAMPING HEADS – CUSTOMIZED

Description:
We provide clamping heads in special design
- with stepped bores
- with jaws
- with front part
- with special slots etc.

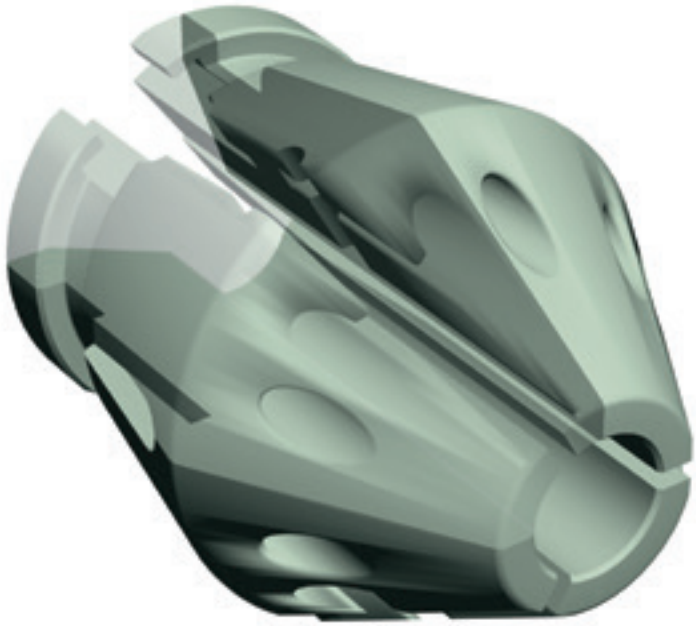
Special designs are available regardless of the clamping head size. As is customary at Nann, we produce special clamping heads in the highest quality with the shortest possible delivery times.

Bore patterns:
- smooth
- grooved
- according to customer preferences

Hardness:
The clamping heads are made from special spring steel. Where possible, by partial tempering, the hardness of the taper and the clamping bore is HRc 58 - 60. Attention: if a workpiece is only briefly clamped in a clamping head, the clamping head may have to be supported in the rear region of the clamping bore. For exchange or replacement of the clamping head, a special design of mounting fixture may be necessary. Conversions to very short deadlines from standard clamping heads from stock are possible any time, e.g.:
- internal grinding
- eroding etc.

Facts and figures:
Clamping heads in special designs are designed in the same way as the Nann standard clamping heads:
- exchangeable rubber stops
- thoroughly hardened
- can be exchanged with all conventional clamping heads
- high concentricity
- high clamping force
- high rigidity

Don't hesitate to contact us. We will be glad to provide tailor-made clamping devices for your requirements.



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SPECIAL COLLETS

Description:
Special collets are our particular strength. For your applications we manufacture special collets according to samples or to your or our drawings.

We have a wealth of experience in the design of special collets. Our designers are in a position to develop optimal collets for you to very short deadlines, and they are adapted to suit your specific individual requirements. Regardless of whether you want to clamp internally or externally, Nann is always your competent partner.

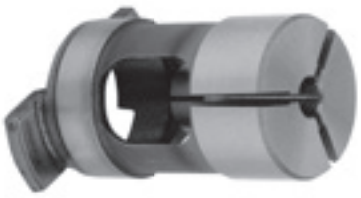
Production takes place within ultra-short deadlines. We are your reliable partner – just get in touch with us. We are distinctive for our high quality and reliability combined with our high flexibility in the handling of customer requirements. You can rely on our expert advise when it comes to your clamping challenges.

We manufacture special collets:
- by sample
- according to customer's drawings
- based on Nann constructions

As a matter of course, we are also able to manufacture special collets in stainless steel, or collets with various coatings, e.g. as corrosion protection or wear protection.

Special collets and standard ones too can be given carbide inserts, or jaws made from plastic or brass.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



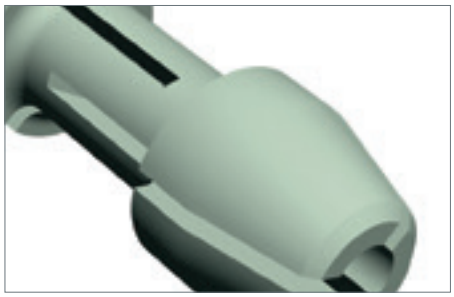
SINGLE AND DOUBLE-TAPER COLLETS

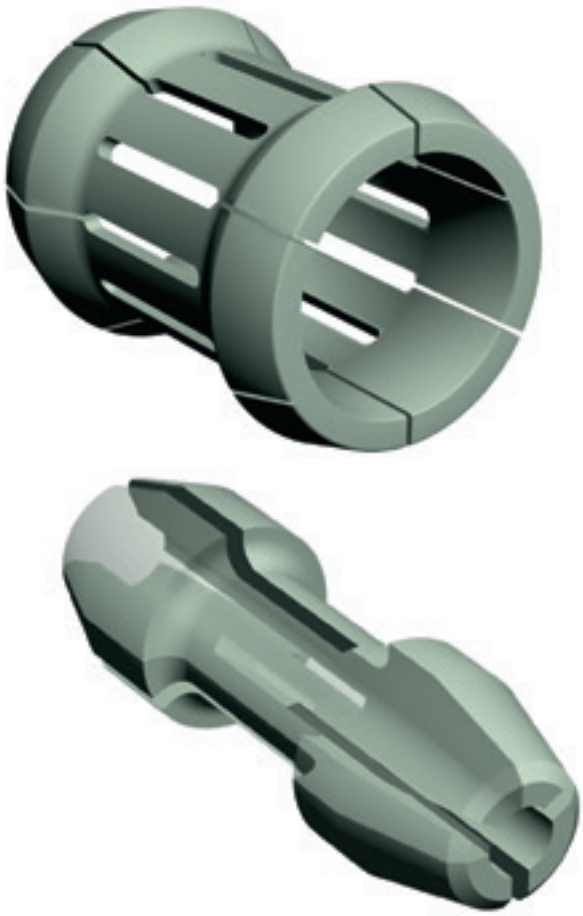
Description:
We manufacture single and double-taper collets from Nann drawings or customer drawings. We will gladly construct the right collet to suit your applications together with you.

Single-taper collets have an externally located taper via which the collet is closed during clamping. The collet either stands firm, and a cover with inner taper is pressed over the single taper of the collet, or the collet is moved and pressed inside an inner taper. This closes the collet and the workpiece is clamped. Unclamping takes place the other way around.

Double-taper collets normally have a cylindrical shaft in the middle, plus an outer taper to the left and right of the shaft respectively. During clamping the double-taper jaw on both tapers is closed simultaneously, whereby a taper sleeve is pushed over the outer taper of the double-taper collet.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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COLLETS WITH BAYONETS

Description:
Collets with bayonets are very often used for clamping collets in the draw-in attachment. This bayonet can be attached to the shaft of the collet on both the outside and the inside.

Bayonets have an advantage over collets with outer or inner threads because exchanging the collet takes less time, though the manufacturing costs for collets with bayonets are higher than for those with similar ones with threads. Naturally we also manufacture this type of collet according to customer drawings or to Nann designs.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.

SPECIAL COLLETS MADE FROM ALTERNATIVE MATERIALS, COATINGS

Description:

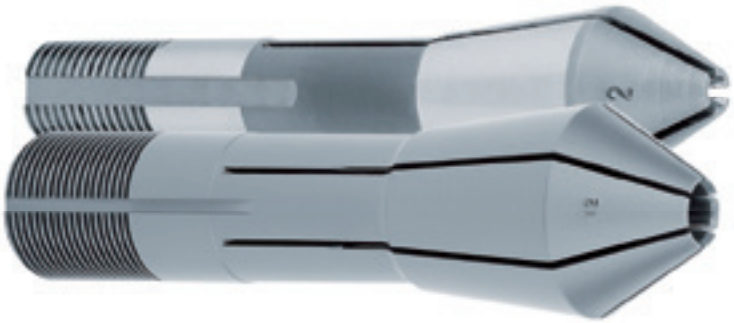
We manufacture special collets not only from the usual spring steel, but also from various other materials. Not every material is suitable for the manufacture of collets, but there are also alternative materials that can be used. These frequently include stainless material, spring bronze or other materials.

Please note that when using alternative materials the properties of the collet, such as e.g. wear resistance or spring properties, may be worse than when using the usual spring steel. Alongside the use of special materials in the production of collets, special collets can also be coated. We coat your special collets using various methods. We will be glad to give you advise on which coating is best suited to your particular application, e.g. as rust protection, for reducing or increasing the coefficient of friction, to avoid pressure areas on the clamped workpiece.

We offer, among other things:

- carbide coating
- synthetic coatings
- DNC coating
- TIN coating etc.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



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SPECIAL COLLETS, OUTER AND INNER COLLETS

Description:
Nann manufactures special collets consisting of outer and inner collets either according to our own Nann designs or to customer drawings. With these collets the workpiece is clamped in the inner collet, and the inner collet is closed during clamping via the outer collet. The outer collet is normally pushed from the front over the inner collet and secured against distortion via cut outs on the shaft side. For this there are also cut-outs available on the inner collet. On the clamping bore side, the outside of the inner collet is cylindrically ground, while the outer collet in this area has an outer taper. If the outer collet is now closed via this taper, the workpiece is clamped in the inner collet.

There are various ways of operating this collet:

- The outer collet remains fixed and the inner collet moves during the clamping process.
- The inner collet remains stationary and the outer collet moves.
- Both collets remain fixed and the clamping sleeve of the draw-in attachment moves.

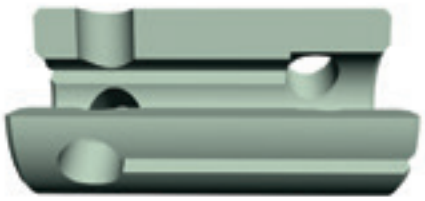
Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.

SPECIAL COLLETS, CYLINDRICAL CLAMPING SLEEVES

Description:
We manufacture all kinds of different types of cylindrical clamping sleeves according to Nann drawings or customer drawings. Regardless of what type of cylindrical clamping sleeve you need or where you want to use it, Nann is always your competent partner.

Our product range includes reduction sleeves for hydraulic chucks as well as any other types of clamping sleeves. These clamping sleeves can be designed with or without collar, profiled bores can be attached to the clamping bore, and clamping sleeves can be sealed.

Don't hesitate to contact us. We will be pleased to provide tailor-made clamping devices for your requirements.



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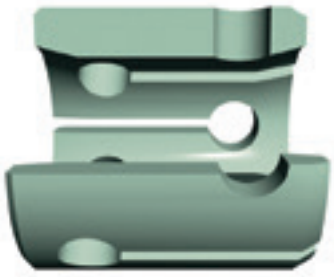
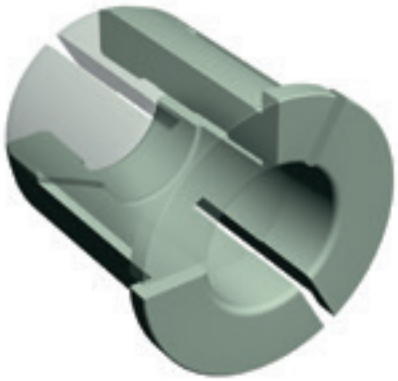
SPECIAL COLLETS, TAPERED CLAMPING SLEEVES

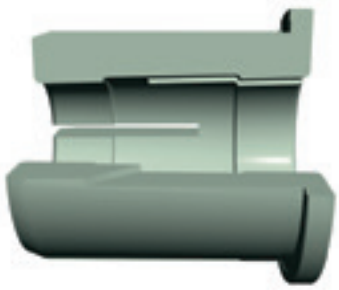
Description:
Apart from a large number of cylindrical clamping sleeves we also produce clamping sleeves with tapers, used for the clamping of workpieces inside a bore.

Regardless of whether these clamping sleeves are designed with a single or double taper, Nann is always your competent partner. As a matter of course, this type of clamping sleeve can be produced in most diverse variants: with or without internally or externally located collar, with round external diameter, with profiled bore on external diameter, with straight or slanted slots, with sealed slots, etc. The design of the clamping sleeve is matched precisely to suit your specific application.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







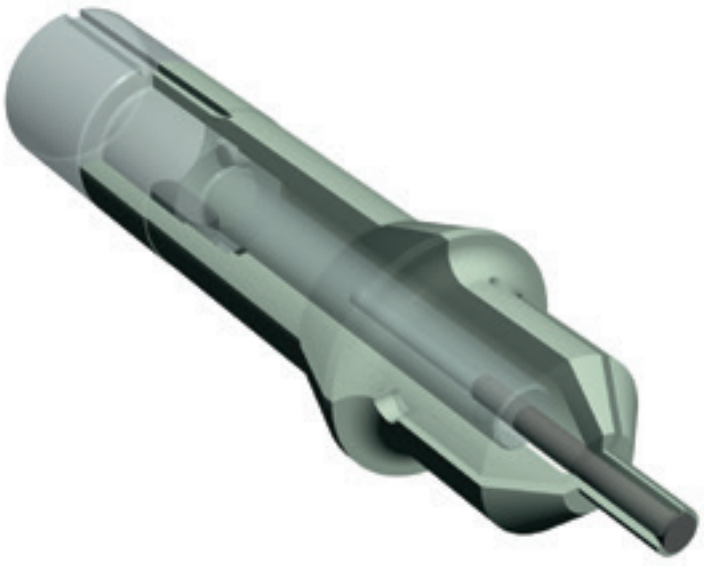
SPECIAL COLLETS, THREE-PART EXPANDING COLLET

Description:
We manufacture three-part expanding collets according to Nann designs or customer drawings. These expanding collets are used if the customer already has a fixture for drawback collets and wants to internally clamp a workpiece on this machine.

This type of expanding collet consists of a body which has the same dimensions as the suitable drawback collet. On the shaft side the part with the external thread is cut off and extended with an intermediate section, so that the required mandrel can be screwed in from the front. For installation of the complete mandrel the free bore of the collet is ground, and the mandrel is secured against distortion. The body is extended forwards, and the front part is adapted to the workpiece that needs clamping and is then slit.

To activate the expanding collet, pull on the thread section; the mandrel opens the expanding collet attached to the fixed body and thus clamps the workpiece. Expanding collets of this type are available in all kinds of different variants.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



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SPECIAL COLLETS, EXPANDING COLLETS WITH CYLINDRICAL HOLDING FIXTURES

Description:

We manufacture expanding collets with cylindrical fixtures according to Nann designs or customer drawings. There are numerous different types of expanding collets that fit into the clamping fixture by means of cylindrical fixtures. These expanding collets can be activated by compression as well as tension, whereby either the expanding collet or the mandrel either remains mobile or immobile. On request we also manufacture suitable end stops for the expanding collet.

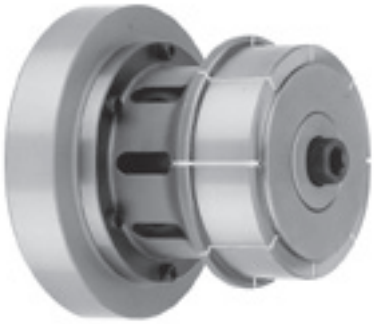
Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.

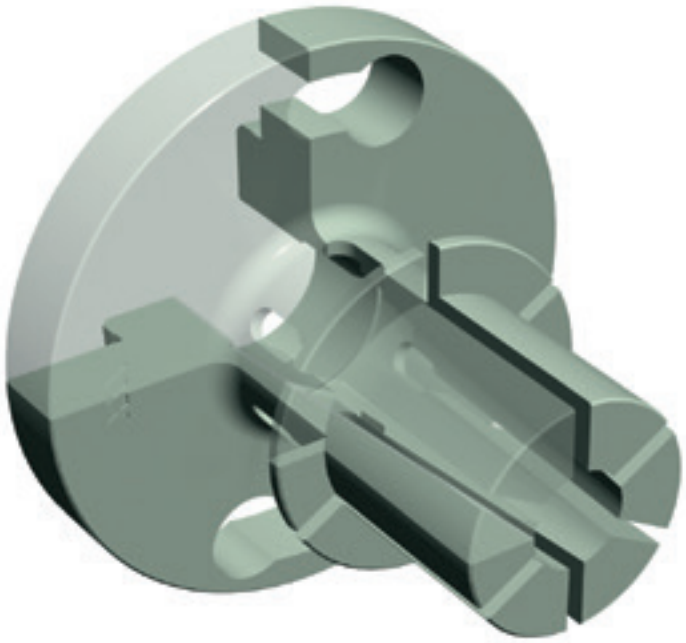
SPECIAL COLLETS, EXPANDING COLLETS WITH FLANGE FIXTURE

Description:

We manufacture expanding collets with flange fixture according to Nann designs or customer drawings. Expanding collets with flange fixture are manufactured with a cylindrical flange as well as a short-taper fixture depending on the design of the respective spindle. The expanding collet can be activated by compression as well as tension, whereby either the expanding collet or the mandrel nose remains mobile or immobile. On request we also manufacture end stops suitable for the expanding collet.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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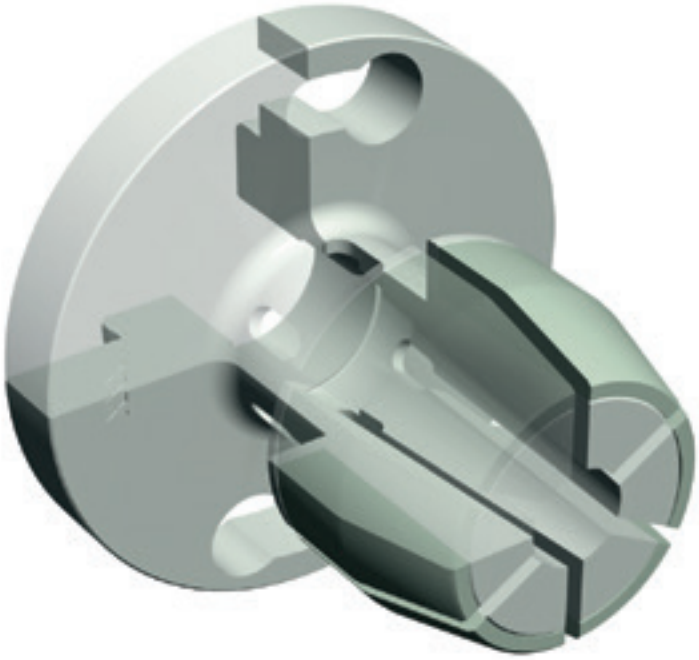
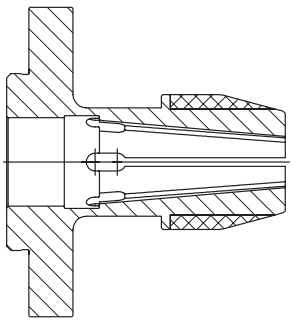
SPECIAL COLLETS, EXPANDING COLLETS WITH CARBIDE INSERT

Description:
Carbide inserts can be integrated into collets regardless of the type of activation, whether compression or tension, as well as into feed grippers. The use of carbide inserts ensures significantly higher wear resistance. The quality of the carbide insert is designed to achieve optimum results when clamping of most materials.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



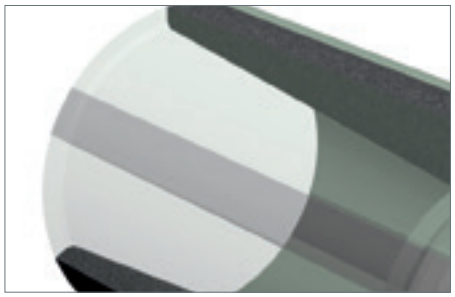


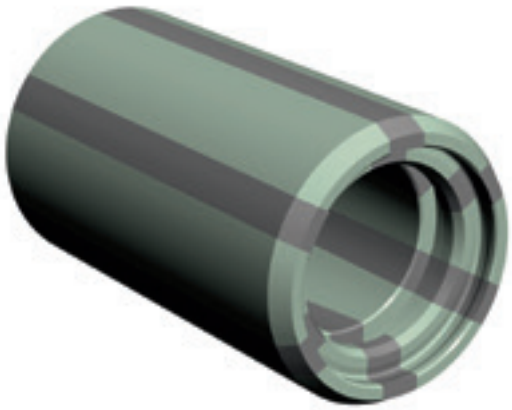
SPECIAL COLLETS, SEGMENTED CLAMPING SLEEVES

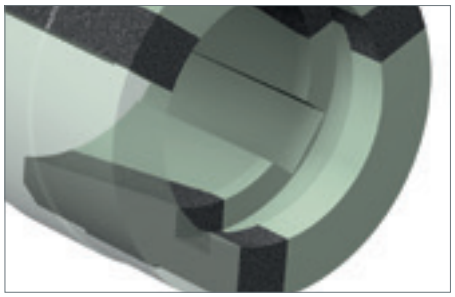
Description:
We manufacture special expanding sleeves as segmented sleeves with hardened steel segments according to Nann designs or customer drawings. Segmented clamping sleeves are characterised by hardened low-wear steel segments which are vulcanized. They are especially made for clamping workpieces having an inner geometry accessible from outside in the form of boreholes or a prismatic holding fixture.

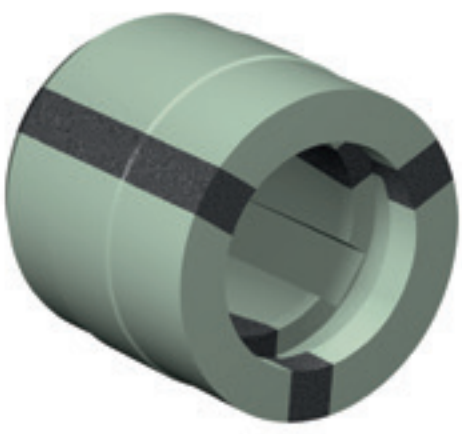
There is a great variety of different segmented clamping sleeves. The sleeves are activated by tension or compression, with either the expanding sleeve or the mandrel is fixed or, respectively, moves. On request we also manufacture end stops suitable for the expanding collet.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.









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SPECIAL COLLET CHUCKS FOR EXTERNAL CLAMPING

Description:
Apart from a comprehensive range of storage suitable standard collet chucks, we also manufacture special clamping fixtures for workpiece clamping according to customer drawings or their own constructions. Nann is always your competent partner. Our many years of experience help you to solve your clamping problems.

We manufacture for you:
- standard devices with special collets
- special clamping devices with standard collets
- special clamping devices with special collets
- manually operated clamping devices
- power operated clamping devices
- pneumatically or hydraulically operated clamping devices
- stationary collet chucks
- rotating collet chucks
- single clamping devices for deadlength, draw-back or double taper collets
- multiple clamping systems

Areas of application:
For clamping workpieces
- for machining
- for joining
- for pressing or crimping
- for testing
- for laser marking
- for laser welding etc.

We will be glad to hear about your experiences and suggestions you may have concerning the construction of special clamping devices for your application. High flexibility when it comes to realizing our customers' wishes – that's what makes the difference. Economic efficiency plays a crucial role in the development and design of special clamping devices. We also guarantee you short delivery times for special clamping devices and, as a matter of course, the customary Nann quality.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.

SPECIAL COLLET CHUCKS FOR DEADLENGTH COLLETS MANUALLY-OPERATED COLLET CHUCKS

Description:

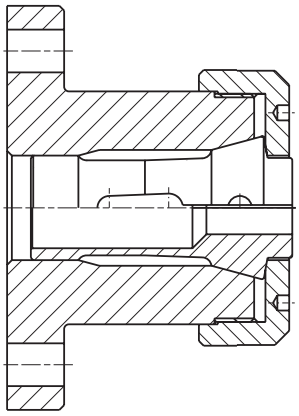
We manufacture special collet chucks for deadlength collets in different designs with differing clamping areas. These collet chucks are manually operated. The clamp consists of a simple chuck body, simultaneously designed as a clamping sleeve. The deadlength collet is pushed into the chuck body during clamping; when the nut is opened, the collet is released from the chuck body and the clamped workpiece can be removed.

The holding fixture of the collet chuck is designed in accordance with customers' wishes. In most cases the chuck body is designed with a cylindrical flange, but a short taper flange is also possible anytime. As a matter of course, it is also possible to attach an intermediate flange.

Facts and figures:

- for deadlength collets
- manual operation
- various sizes and clamping ranges
- any holding fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



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SPECIAL COLLET CHUCKS FOR DEADLENGTH COLLETS POWER-OPERATED COLLET CHUCKS

Description:

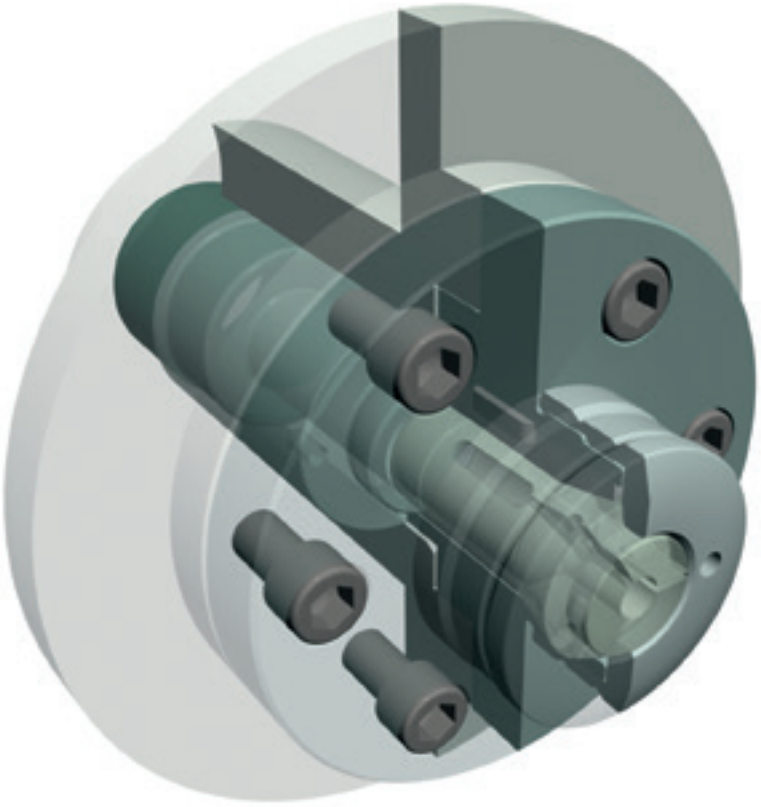
Nann manufactures special collet chucks for deadlength collets in various designs, and with different clamping ranges. Due to their favourable dimensions combined with their low tare weight, power-operated collet chucks are frequently used for direct installation. In contrast to conventional power-operated collet chucks of type KSF these collet chucks are not simply placed on the spindle nose but installed as far as possible inside the spindle.

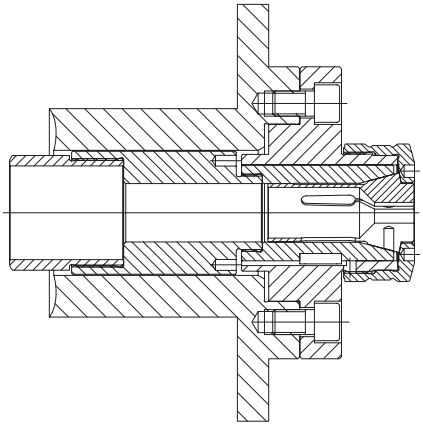
These collet chucks are operated by means of a hydraulic or pneumatic clamping cylinder. Changing the collet takes place from the front, by loosening the tensioning nut without a tool changing device. These chucks are distinctive for their very easy handling and installation. We manufacture these collet chucks to customer drawings or our own designs in a very short time.

Facts and figures:

- for deadlength collets or multiple-area clamping collets
- for spindles with rotating hydraulic or pneumatic cylinder
- various sizes and clamping areas
- no axial offset of the workpieces
- any holding fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





SPECIAL COLLET CHUCKS FOR DEADLENGTH COLLETS PLATE SPRING CLAMPING, ADJUSTABLE CLAMPING FORCE

Description:

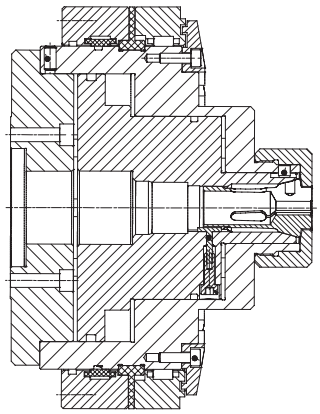
We produce rotating clamping fixtures for deadlength collets with plate spring clamping and adjustable clamping force. The clamping sleeve is pushed forward by the plate spring packages and the collet is closed. Unclamping takes place via an integrated, simply functioning piston. The compressed air is fed into the cylinder chamber via a stationary distributor ring. This distributor ring is attached to the chuck body by means of a plastic ring. Please note that the collet chuck can only be unclamped, if the spindle is stationary. Exchanging the collet always needs to be done when the collet is in unclamped condition.

These collet chucks stand out because the clamping force can be altered. By turning all the adjustment bolts, the clamping force can be changed. Any change of the clamping force needs to be executed in clamped condition. The collet chuck is adapted to your individual requirements. The clamping range, rotational speed etc. are geared towards your individual preferences.

Facts and figures:

- for deadlength collets
- clamping with plate springs
- pneumatic unclamping via distributor ring
- various sizes and clamping ranges
- any fixtures via intermediate flange
- clamping pressure 6 bar
- adjustable clamping force

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



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SPECIAL CLAMPING FIXTURE FOR DEADLENGTH COLLETS, HYDRAULIC

Description:

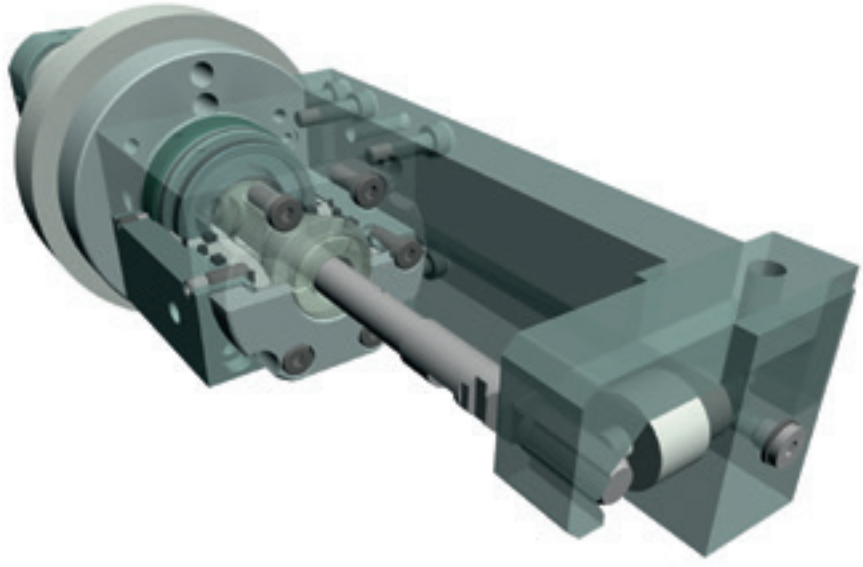
We manufacture special clamping fixtures in all kinds of different designs using standard clamping devices. The clamping fixture consists of a taper shaft with cylindrical flange, inside the spindle of an NC indexing unit. A base-plate is attached to this cylindrical flange on which a standard clamping device of type HZ 25 is mounted for clamping the workpiece. Since a very long workpiece is to be clamped, it has to be centred on the side opposite the clamping fixture and clamped as well. A hydraulic swivel clamp is used for this purpose.

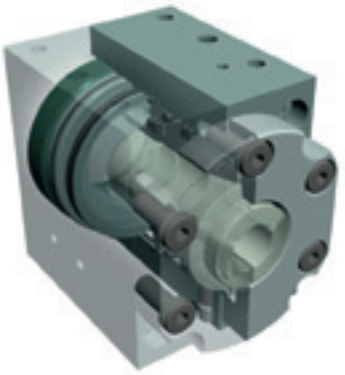
To feed in hydraulic oil, a rotational feed is attached to the end of the taper shaft, which is also manufactured by Nann. We manufacture these collet chucks according to customer drawings or Nann designs ia a very short time.

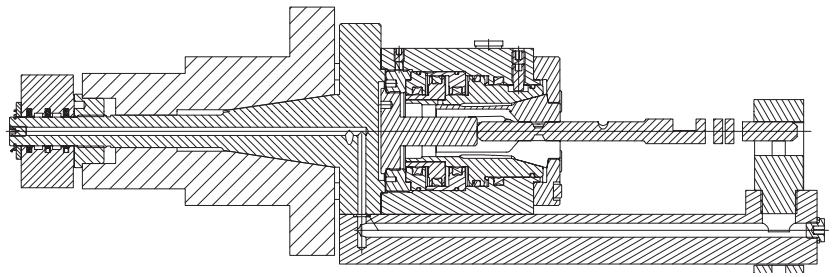
Facts and figures:

- for deadlength collets
- for use with standard clamping devices type HZ 25
- for use with standard swivel clamp
- special rotational feed
- clamping pressure max. 80 bar

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







SPECIAL COLLET CHUCKS POWER-OPERATED COLLET CHUCKS

Description:

Nann manufactures special collet chucks for drawback collets in all kinds of different designs and with different chucking ranges. The collet chuck consists of a simple one-section chuck body, which is simultaneously used as a collet sleeve. The draw-back collet is pulled inside the chuck body during clamping, resulting in a light axial movement at the workpiece in the direction of the spindle nose. During unclamping the clamping cylinder pushes the draw-back collet out of the fixture.

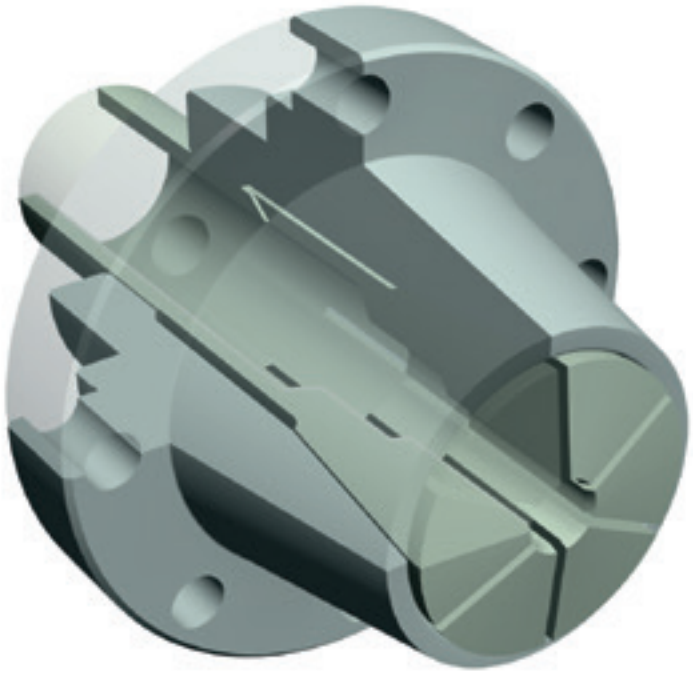
When ordering, please specify whether short workpieces are to be fed in from the front, so that the collet can be expanded, especially where automatic loading is involved.

These collet chucks are designed, depending on the application, according to your requirements for standard or special collets. We manufacture these collet chucks for maximum running concentricity. For this, the collet chucks are designed with cylindrical fixtures, and while the collet chuck is being screwed on the entire chuck body can be aligned in the spindle; this gives the collet chuck optimal concentricity. Using special, high-precision collets results in extremely true running accuracy. The collet chuck is operated either via a hydraulic or pneumatic cylinder.

Facts and figures:

- for draw-back collets
- for high-precision collets
- for spindles with rotating hydraulic or pneumatic cylinders
- various sizes and chucking ranges
- cylindrical fixture

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



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SPECIAL COLLET CHUCKS FOR DRAW-BACK COLLETS POWER OPERATED COLLET CHUCKS, STATIONARY END STOP

Description:

We manufacture special collet chucks for drawback collets with fixed end stop in different designs and with different clamping areas.

The collet chuck consists of a simple one-section chuck body, simultaneously serving as a collet sleeve. During clamping, the draw-back collet is drawn into the chuck body, and this creates a slight axial movement at the workpiece in the direction of the spindle nose. This pull-down effect causes the workpiece to be pulled against the flat surface of the fixed end stop. During unclamping the clamping cylinder pushes the draw-back collet out of the fixture.

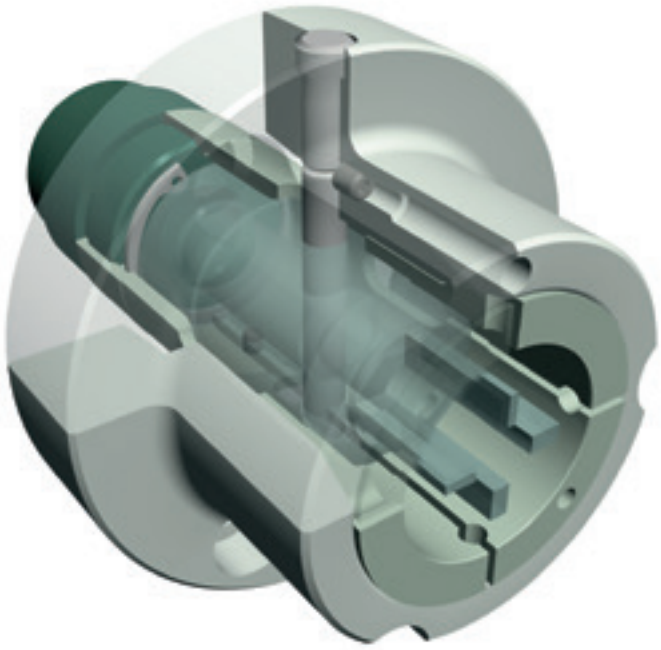
When ordering, please specify whether short workpieces are to be fed in from the front, so that the collet can be expanded, especially where automatic loading is involved. The collet chuck is operated either via a hydraulic or pneumatic cylinder.

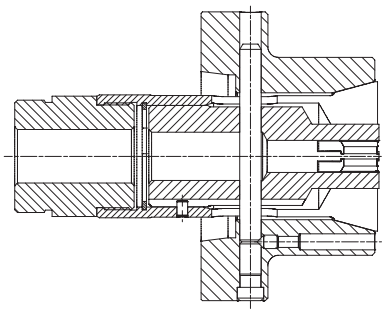
We manufacture these collet chucks according to customer drawings or our own designs, within ultra-short deadlines.

Facts and figures:

- for draw-back collets
- with fixed end stop
- for spindles with rotating hydraulic or pneumatic cylinder
- various sizes and chucking ranges
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





SPECIAL COLLET CHUCKS FOR DRAW-BACK COLLETS POWER-OPERATED COLLET CHUCKS WITH PLATE SPRINGS

Description:

We manufacture special collet chucks for drawback collets in various designs with different clamping ranges. The collet chuck consists of a one-section chuck body, which is simultaneously used as a collet sleeve.

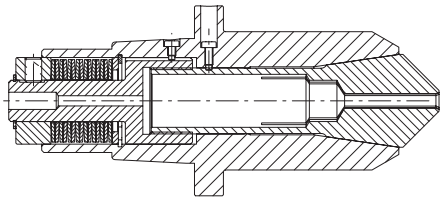
During clamping, the draw-back collet is drawn into the chuck body via the plate springs, resulting in light axial movement of the workpiece in the direction of the spindle-nose. Plate spring clamping results in self-locking, and the clamping of the workpiece is self-retaining. Unclamping results from load on the plate springs by the machine.

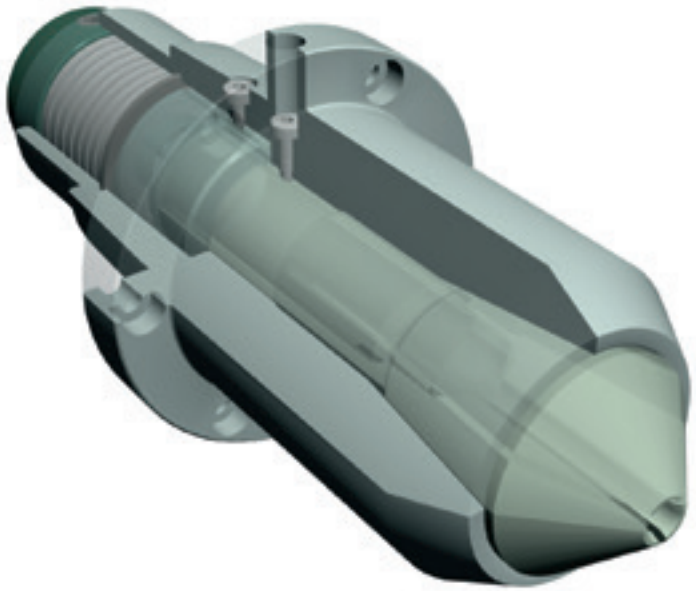
When ordering, please specify whether short workpieces are to be fed in from the front, so that the collet can be expanded, especially where automatic loading is involved. These collet chucks are designed according to your requirements for standard or special collets depending on the application. We will be happy to design these collet chucks for high-precision collets. We manufacture these collet chucks with any fixtures on the machine side – with cylindrical fixtures, quick-release taper fixtures or HSK fixtures. These collet chucks are manufactured according to customer drawings or our own designs within the shortest of deadlines.

Facts and figures:

- for draw-back collets
- for high-precision collets
- for spindles with rotating hydraulic or pneumatic cylinder
- various sizes and chucking ranges
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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SPECIAL COLLET CHUCKS FOR DRAW-BACK COLLETS POWER-OPERATED COLLET CHUCKS WITH PLATE SPRINGS, FIXED COLLETS

Description:

Nann manufactures special collet chucks for draw-back collets in all kinds of designs with different clamping ranges. The collet chuck consists of a one-section chuck body, with a clamping sleeve built into it in the axial direction.

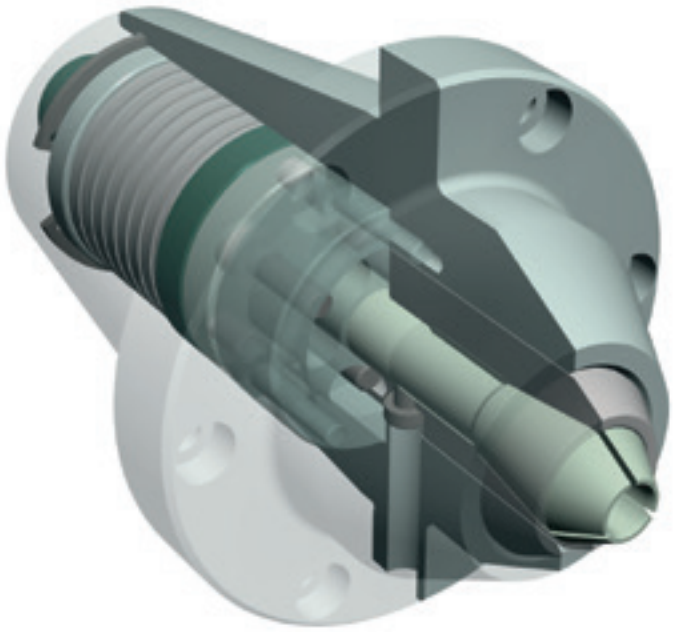
During clamping, the clamping sleeve is pushed forward by the plate springs, thereby closing the collet. The plate spring clamping achieves self-locking and the clamping of the workpiece is self-retaining. Unclamping results from load on the plate springs caused by the machine. With this type of collet chuck, the collet stands absolutely firm in the axial direction, thus preventing any workpiece movement in that direction.

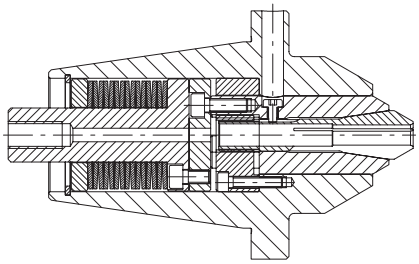
When ordering, please specify whether short workpieces are to be fed in from the front, so that the collet can be expanded, especially where automatic loading is involved. These collet chucks are designed according to your requirements for standard or special collets depending on the application. We will be happy to design these collet chucks for high-precision collets. We manufacture these collet chucks with any fixtures on the machine side – with cylindrical fixtures, quick-release taper fixtures or HSK fixtures.

Facts and figures:

- for draw-back collets
- for high-precision collets
- for spindles with rotating hydraulic or pneumatic cylinder
- various sizes and chucking ranges
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





SPECIAL COLLET CHUCKS FOR DRAW-BACK COLLETS POWER-OPERATED COLLET CHUCKS, TWO-PARTS

Description:

We manufacture special collet chucks for draw-back collets in all kinds of designs with different clamping ranges. The collet chuck consists of a two-parts chuck body.

The machine spindle takes any fixture; these collet chucks are mostly manufactured for machines with quick-release taper fixtures but can be produced at any time for other fixture types, such as HSK. The fixture can be extended forwards cylindrically. For fixation of the collet, a clamping sleeve is integrated into this cylindrical extension. This clamping sleeve is screwed onto the basic fixture via a cylindrical fixture with a flange. This enables the clamping sleeve to be aligned on the machine while being screwed, resulting in very high concentric accuracy during the use of suitable high-precision collets.

While being clamped by means of a draw-back rod the draw-back collet is pulled inside the chuck body, resulting in a light axial movement at the workpiece in the direction of the spindle nose. During unclamping the clamping cylinder pushes the draw-back collet out of the fixture.

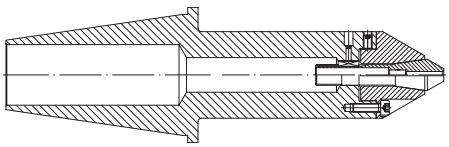
When ordering, please specify whether short workpieces are to be fed in from the front, so that the collet can be expanded, especially where automatic loading is involved.

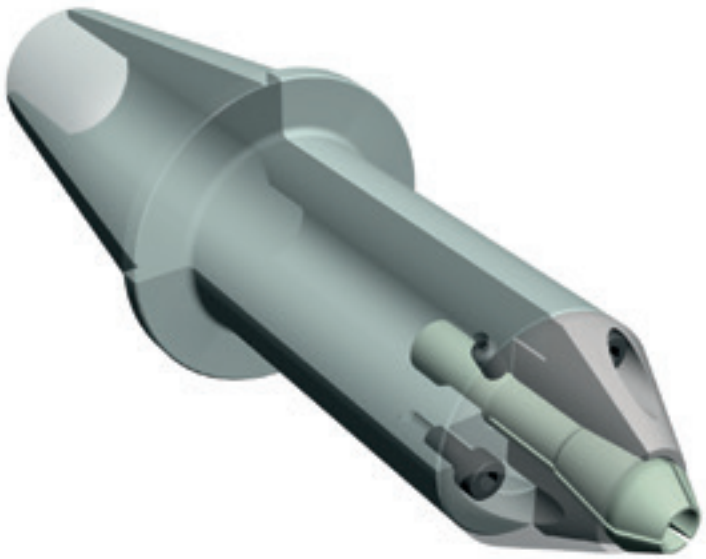
These collet chucks are designed according to your requirements for standard or special collets depending on the application. Nann manufactures these collet chucks according to customer drawings or our own designs.

Facts and figures:

- for draw-back collets
- for high-precision collets
- for spindles with rotating hydraulic or pneumatic cylinder
- various sizes and chucking ranges
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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SPECIAL COLLET CHUCKS FOR DRAW-BACK COLLETS PNEUMATIC CLAMPING, PRESSURE SPRINGS

Description:

We manufacture special collet chucks for draw-back collets in all kinds of designs with various clamping ranges. The collet chuck consists of a chuck body with a cylindrical flange attachment.

For fixation of the collet, a clamping taper has been integrated into the chuck body. The draw-back collet is pulled inside the chuck body during clamping, resulting in a light axial movement at the workpiece in the direction of the spindle nose. For unclamping the pressure springs push the draw-back collet out of the fixture. The collet chuck is operated via a pneumatic cylinder.

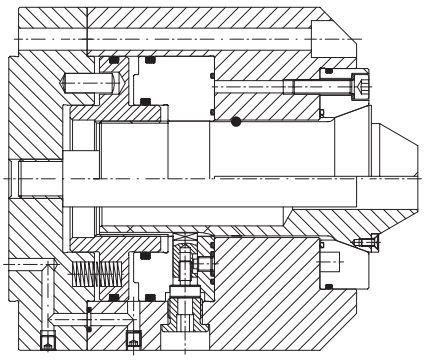
The collet pictured here has a special and distinctive function: since this collet chuck is used in environments with sharply varying temperature fluctuations, during plasma wielding, it tends to corrode. To prevent this, the entire collet chuck has been coated with DNC, and cooling bores drilling into the chuck are used to permanently cool it with water.

The draw-back collet is a pure special collet with front part; the material of the collet is a special copper alloy, facilitating and improving heat conduction. Nann manufactures these collet chucks according to customer drawings or our own designs.

Facts and figures:

- for draw-back collets
- for spindles with rotating pneumatic cylinder
- pressure springs for unclamping
- various sizes and clamping ranges
- cylindrical fixture

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



SPECIAL COLLET CHUCKS FOR DRAW-BACK COLLETS PLATE SPRING CLAMPING, ADJUSTABLE CLAMPING FORCE

Description:

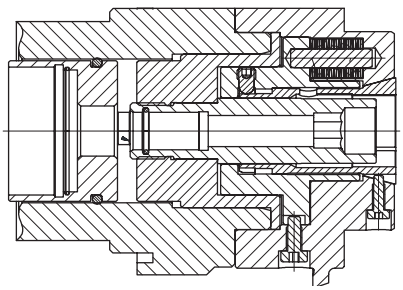
Nann produces rotating clamping fixtures for drawback collets with plate-spring clamping and adjustable clamping force. These collet chucks are specially made for mounting on a machine spindle and are distinctive for their compact design. They are especially suitable for the clamping of very short workpieces.

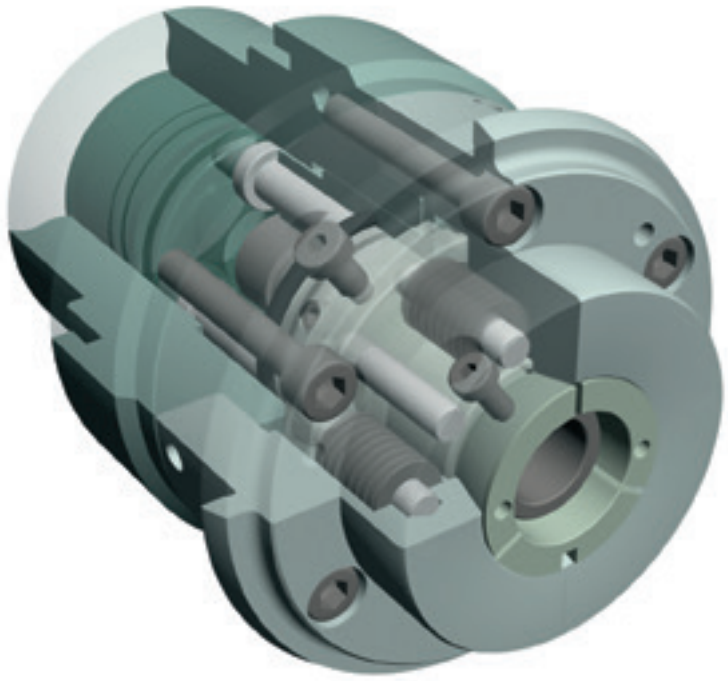
The draw-back collet is equipped with a bayonet, so replacing the collet is very fast and can be done from the front. During clamping the workpiece is pulled against an integrated end stop, resulting in a pull-down effect so that the workpiece is always axially positioned in the same way. The collet is opened via the hydraulic cylinder of the machine; the opening is limited by a travel limiter integrated into the collet chuck. Placement of the collet must always be done when the collet is unclamped. This collet chuck is special in that the clamping force can be altered. The clamping force can be adjusted by turning all the adjustment pins. Adjustment of the clamping force must be done in clamped condition. This type of collet is suitable for mounting on machine spindles, especially multi-spindle automatic lathes for the processing of collet-chuck components. These chucks are individually altered to suit your requirements.

Facts and figures:

- for draw-back collets with bayonet
- collet quickly replaceable from the front
- fixed end stop for workpieces
- clamping via plate springs
- hydraulic unclamping
- various sizes and chucking ranges
- adjustable clamping force
- internal coolant feed

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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SPECIAL COLLET CHUCKS FOR DRAW-BACK COLLETS ROTATING, PRESSURE-SPRING CLAMPING

Description:

We produce rotating clamping fixtures for drawback collets with pressure-spring clamping. The axially fixed collet is clamped by the clamping sleeve, which is pressed forwards by the integrated pressure springs. The collet is unclamped by means of compressed air, which pushes the clamping sleeve backwards and thus opens the clamp. The compressed air is fed in via a stationary distributor ring.

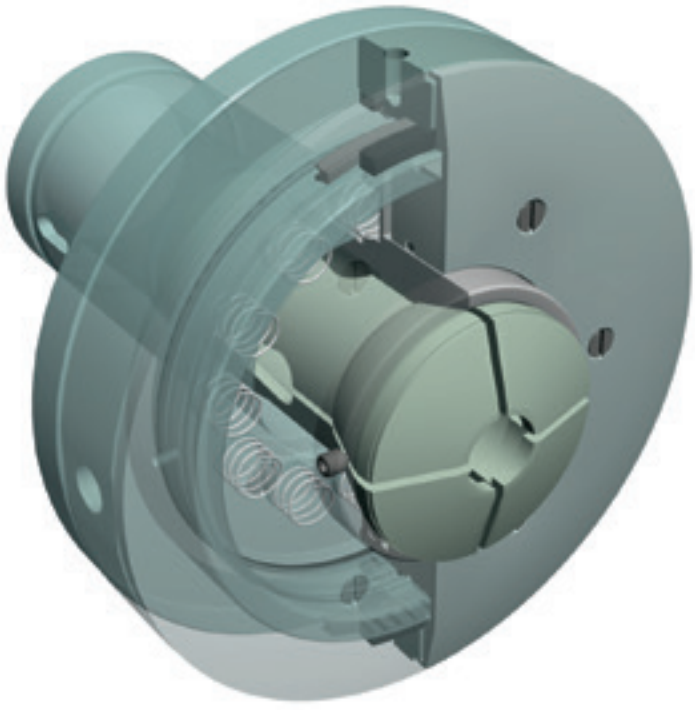
The clamping fixture may only be used if the spindle is stationary, to avoid damage to the distributor ring. The collet is exchanged in unclamped condition. Depending on the application, the draw-back collet can be secured in the housing against distortion. Only very low amounts of clamping force are achieved with these highly compact collet chucks with pressure-spring clamping. They are therefore unsuitable when large amounts of force are applied to the workpieces requiring clamping. These devices are frequently used in the laser-marking or laser-welding machine sectors and are also used as test spindles.

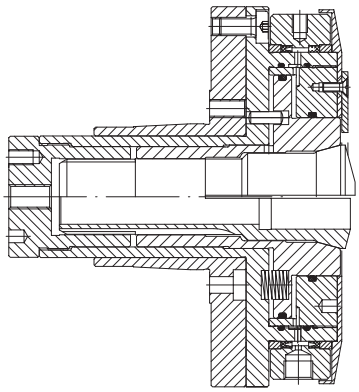
These collet chucks are produced to ultra-short deadlines according to customer drawings or our own designs.

Facts and figures:

- for draw-back collets
- clamping with pressure springs
- pneumatic unclamping via distributor ring
- different sizes and chucking ranges
- any fixture
- 6 bar clamping pressure

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





SPECIAL COLLET CHUCKS FOR DRAW-BACK COLLETS HYDRAULIC

Description:

We manufacture special collet chucks for drawback collets in different designs with different chucking ranges. The clamping fixture shown is a stationary device, opened hydraulically by means of a mechanically operated piston.

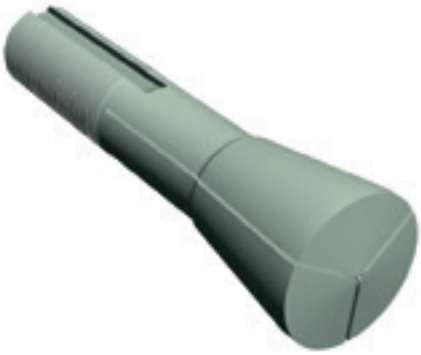
Clamping takes place by means of plate springs located inside the housing. This makes clamping of the device self-retaining and a hydraulic connection is not required. The collet opening movement takes place via mechanical actuation of the piston and the corresponding displacement of the oil. This pushes the clamping sleeve backwards and opens the collet. As soon as the piston is released, the collet closes because the plate-spring packs push the clamping sleeve forwards.

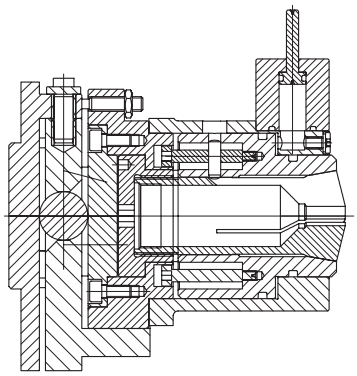
The clamping fixture is placed on floating bearings to compensate for wobble error. This free moving space can be adjusted by four adjustment screws. Oil is added at the screw lid. To mount the collet the piston has to be actuated, so the clamping sleeve is in the rear position. The collet can be screwed in from the front and screwed tight with the special keys provided. This also has to be done before removing the collet.

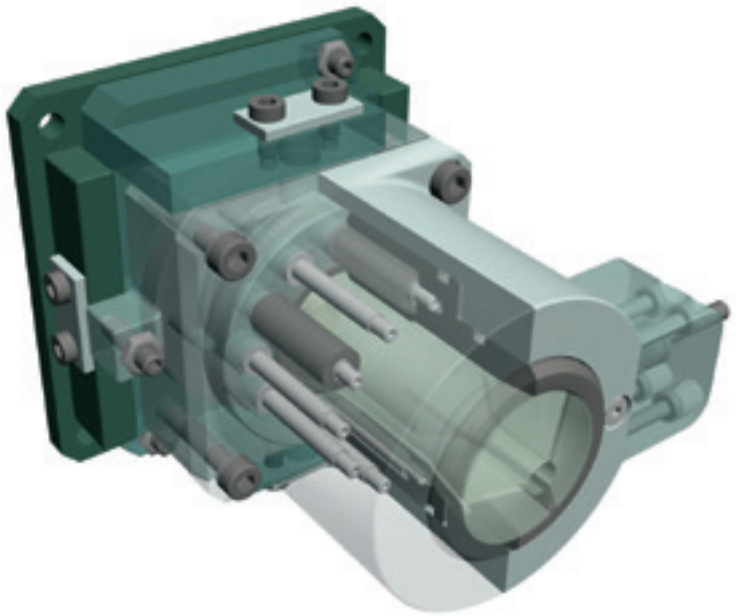
Facts and figures:

- for draw-back collets
- no hydraulic connection required
- mechanical actuation
- used only in stationary application
- different sizes and chucking ranges

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







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SPECIAL COLLET CHUCKS HESK AND HESK-R PLATE SPRING CLAMPING

Description:

The proven collet clamping attachments type HESK and type HESK-R are suitable for numerous applications. Alongside the further development of these devices for collets with bayonet, Nann also develops special collet chucks on the basis of these devices. The collet chucks type HESK-R are frequently used for special applications.

We manufacture for you:

- special collets for the standard devices
- special devices with standard collets
- special devices with special collets

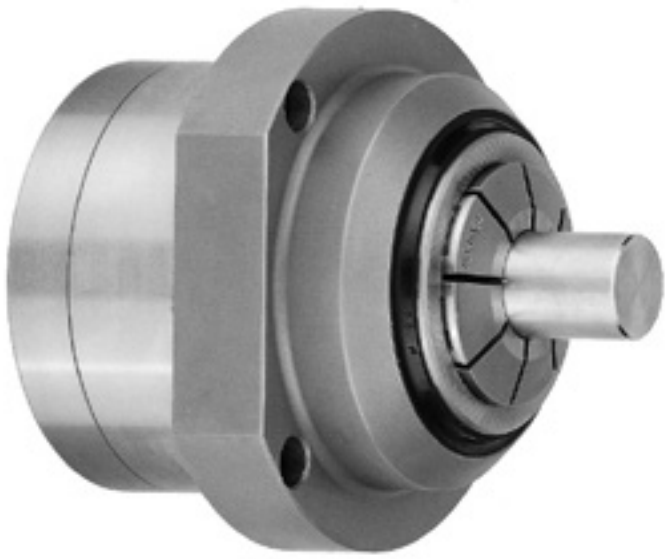
Operating mode:

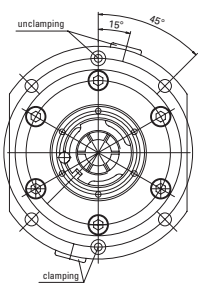
On the standard devices the clamping sleeve is designed as a double-function cylinder, and it opens and closes the collets respectively. The collets themselves have a shoulder on their shaft and are connected firmly to the collet clamping attachment by means of a nut. These devices can of course be specially designed to suit your applications on request wherever necessary. And with customized applications too, we guarantee you the usual high Nann quality and short delivery deadlines.

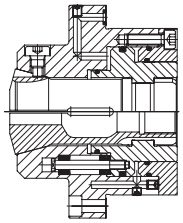
Facts and figures:

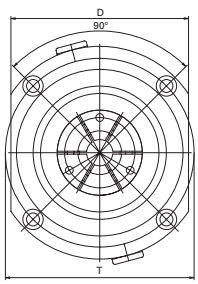
- The collet is moved, the housing and the clamping sleeve are one unit, the clamping sleeve is fixed. This results in a pull-down effect that is required in numerous cases.
- Clamping takes place via plate springs. This means that the device self-locks, and any drop in hydraulic pressure has no consequences.
- hydraulic unclamping

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.









SPECIAL COLLET CHUCKS HESK AND HESK-R HYDRAULIC CLAMPING

Description:

The proven collet clamping attachments type HESK and type HESK-R are suitable for numerous applications. Alongside the further development of these devices for collets with bayonet, Nann also develops special collet chucks on the basis of these devices. The collet chucks type HESK-R are frequently used for special applications.

We manufacture:

- special collets for the standard devices
- special devices with standard collets
- special devices with special collets

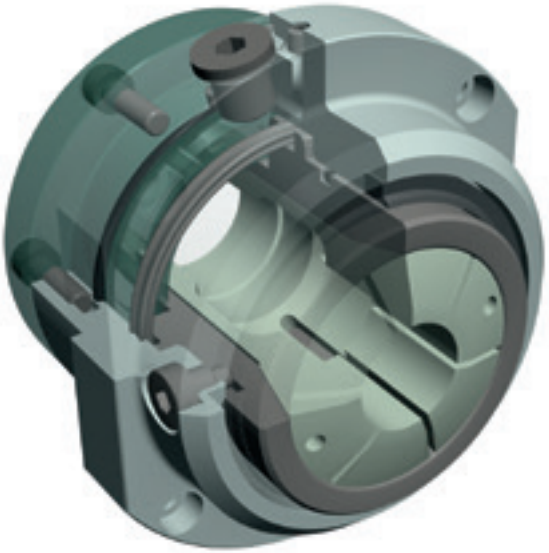
Operating mode:

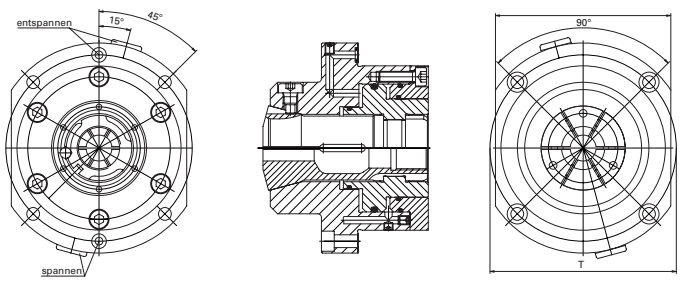
On the standard devices the clamping sleeve is designed as a double-function cylinder, and it opens and closes the collets respectively. The collets themselves have a shoulder on their shaft and are connected firmly to the collet clamping attachment by means of a nut. These devices can of course be specially designed to suit your applications on request wherever necessary. And with customized applications too, we guarantee you the usual high Nann quality and short delivery deadlines.

Facts and figures:

- The collet is moved, the housing and the clamping sleeve are one unit, the clamping sleeve is fixed. This results in a pull-down effect that is required in numerous cases.
- hydraulic clamping

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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SPECIAL COLLET CHUCKS FOR DOUBLE-TAPER COLLETS POWER-OPERATED COLLET CHUCKS

Description:

We manufacture special collet chucks for double-taper collets in different designs with differing clamping areas. The collet chuck consists of a chuck body flanged with a fixture, e.g. a cylindrical flange or short taper, on to the spindle nose of the machine. Attachment using an intermediate flange is also possible. Two clamping tapers are ground into the chuck body, and the front clamping taper is held in axial direction with a union nut.

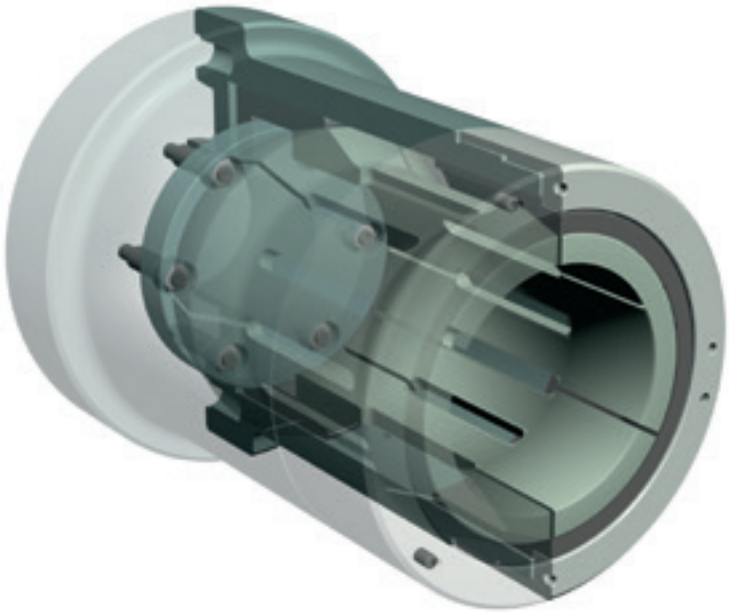
The double-taper collet is closed for workpiece clamping as follows: the rear clamping taper is pressed in the direction of the union nut with its draw-back rod pointing forward, and the two clamping tapers close the collet. For unclamping, the draw-back rod is drawn back again, and the double-taper collet then opens. On request, depending on the application, a fixed end stop can be attached. For replacement of the collet, the union nut has to be loosened, the front clamping taper can be pulled out, and the double-taper collet can then be removed. Collet chucks with double-taper collets are especially suitable for clamping long workpieces and for clamping with high clamping forces.

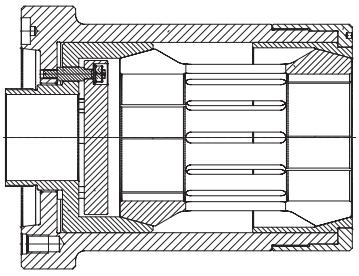
We manufacture these collet chucks according to customer drawings or our own designs, within ultra-short deadlines.

Facts and figures:

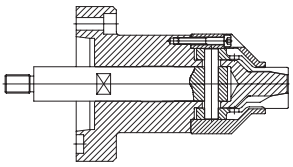
- for double-taper collets
- for spindles with rotating hydraulic or pneumatic cylinder
- various sizes and chucking ranges
- high clamping forces
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.

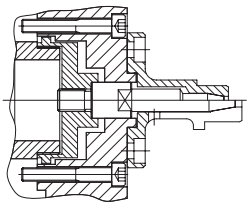




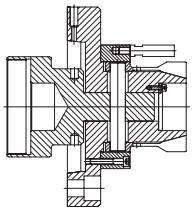
SPECIAL COLLET CHUCKS FOR INTERNAL CLAMPING SLEEVE MANDRELS, EXPANDING MANDRELS



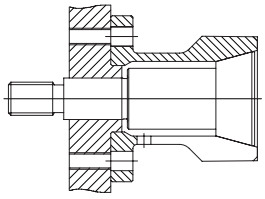
Expanding mandrel fixture
with fixed mandrel



Expanding mandrel fixture tension-activated
with stationary expanding collet



Expanding mandrel fixture
with stationary mandrel



Expanding mandrel fixture compression-activated
with stationary expanding collet

Description:

Apart from a large number of clamping sleeves and mandrels in the standard programme, Nann also offers the most varied kinds of special collet chuck for internal clamping. These are designed according to customer drawings as well as to Nann's own designs. Our design department will be happy to advise you on solving your clamping problem. We offer a large and varied range of mandrels and expanding mandrels, always tailored to your requirements, from simple clamping sleeves to complete clamping devices with expanding mandrel fixture. Depending on the application, mandrels with clamping sleeves, single or double taper, or direct expanding collets are used with compression and tension. The mandrels and/or expanding mandrels are specially modified for you.

We manufacture for you:

- manually operated clamping devices
- power-operated clamping devices
- pneumatically or hydraulically operated clamping devices
- stationary expanding mandrels
- rotating expanding mandrels
- expanding mandrels for compression or tension
- expanding mandrels with or without end stop

Areas of application:

- clamping of workpieces
- metalworking
- testing
- laser marking
- laser welding etc.

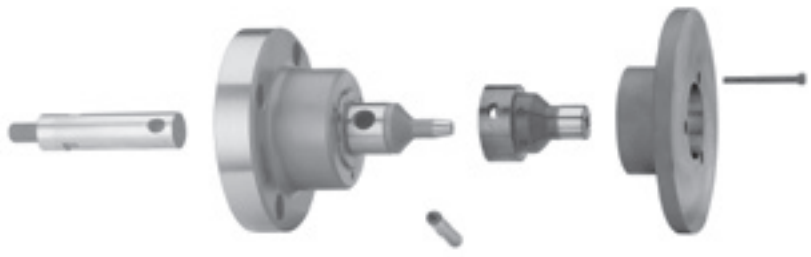
Operating mode:

In terms of function, with expanding mandrels for direct expanding collets or clamping sleeves, we differentiate between several functional principles.

- mandrel stationary – expanding collet moved – compression-activated
- mandrel stationary – expanding collet moved – tension-activated
- expanding collet stationary – mandrel moved – compression-activated
- expanding collet stationary – mandrel moved – tension-activated

Nann is also your competent partner for special collet chucks for internal clamping. We are distinctive for our high degree of flexibility when handling special requests from our customers. Economic efficiency plays a decisive role in the development and construction of special clamping fixtures. We also guarantee you with short delivery deadlines and the customary Nann quality where special clamping fixtures are concerned.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



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SPECIAL COLLET CHUCKS FOR INTERNAL CLAMPING MANUALLY OPERATED COLLET CHUCKS

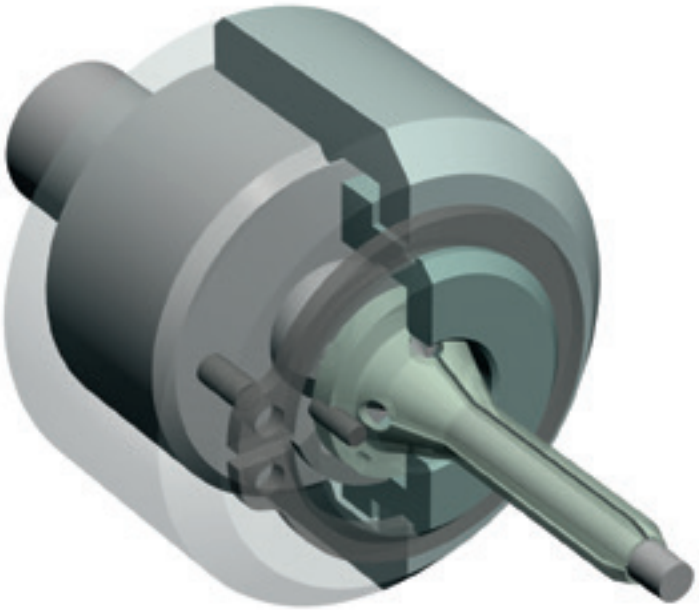
Description:

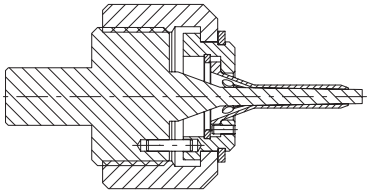
We manufacture special collet chucks for expanding collets or clamping sleeves in different designs and with different chucking ranges. These collet chucks are manually activated. The collet chuck consists of a simple chuck body, on which the expanding mandrel is firmly mounted. The expanding collet is equipped with a collar, and for clamping the expanding collet and the nut are pulled onto the mandrel and thus expanded. When the nut is opened the expanding collet is pressed by the mandrel and the workpiece can be removed. Fixation of the collet chuck is carried out according to customers' wishes. In most cases the chuck body is designed with a cylindrical fixture or cylindrical flange, but a short taper is also possible at any time. It is also possible to attach an intermediate flange.

Facts and figures:

- for expanding collets or clamping sleeves
- manual activation
- different sizes and chucking ranges
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





SPECIAL COLLET CHUCKS FOR INTERNAL CLAMPING FOR MANUAL OPERATION WITH DIRECT EXPANDING COLLET

Description:

We manufacture special collet chucks for direct expanding collets in various designs with different chucking ranges.

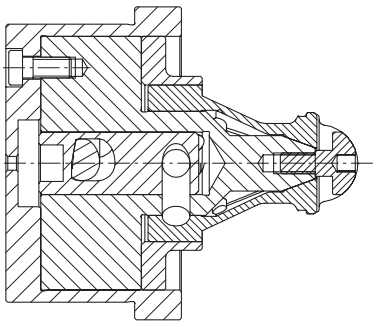
The collet chuck consists of a basic fixture, onto which the mandrel is screwed. The expansion sleeve is drawn backwards for clamping by means of the intermediate section and the crossbar. For unclamping, the expanding collet is pressed forward again through the intermediate section and the crossbar, the expanding collet closes, and the workpiece can be removed. Clamping activation is by turning the clamping key using a hexagonal spanner on the underside of the device.

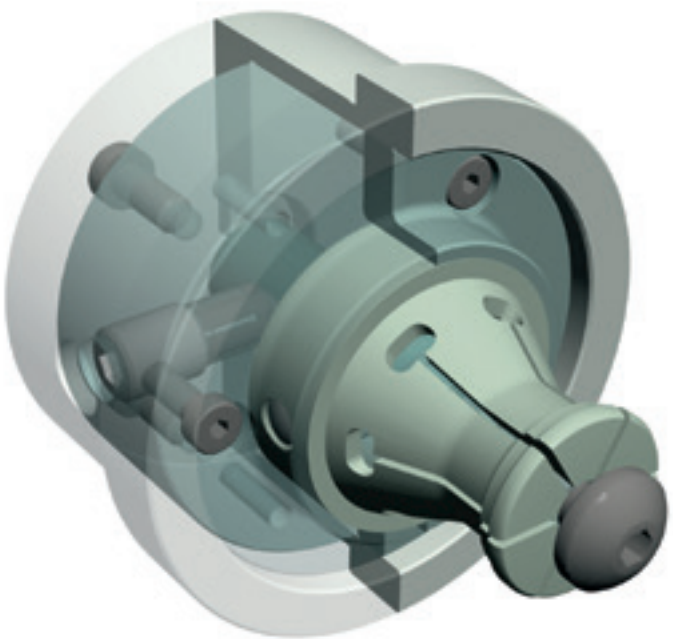
Depending on the type of application, these types of mandrels can be fitted with a fixed end stop so that the workpiece for clamping is always clamped axially in the same position – because during clamping a pull-down effect occurs that pulls the workpiece onto the flat surface of the end stop. This type of expanding mandrel is especially suitable for clamping very short workpieces.

Facts and figures:

- for direct expanding collets
- manually activated
- pull-down effect
- suitable for clamping of very short workpieces
- with or without fixed end stop
- different sizes and chucking ranges
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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SPECIAL COLLET CHUCKS FOR INTERNAL CLAMPING POWER-OPERATED WITH CLAMPING SLEEVE

Description:

We manufacture special collet chucks for clamping sleeves in different designs with differing chucking ranges. The collet chuck consists of a simple chuck body, which simultaneously serves as a clamping taper. The double taper expansion sleeve and the compression mandrel are drawn onto the clamping taper, and the workpiece is clamped.

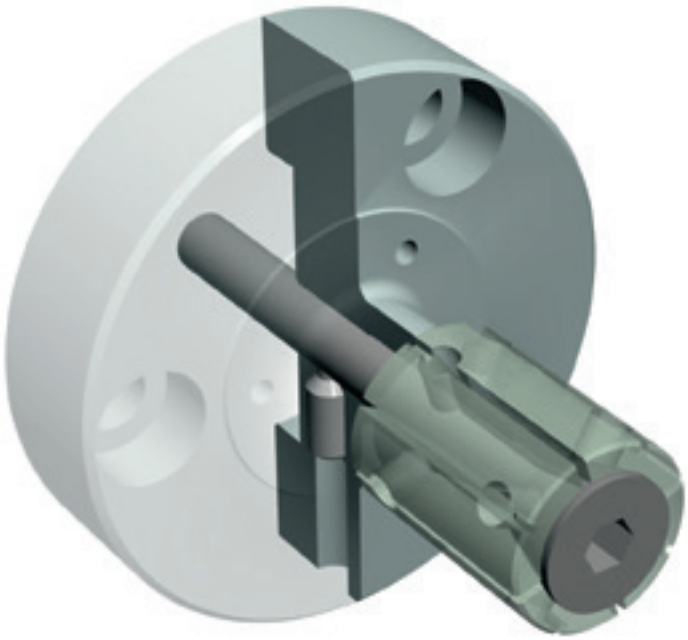
For unclamping, the compression mandrel is pushed forward, the clamping sleeve detaches itself from the clamping taper, and the workpiece can be removed. Depending on the type of application this type of mandrel can be equipped with a fixed end stop, so that the workpiece for clamping is always clamped in the same position axially, since a pull-down effect is created during the clamping process.

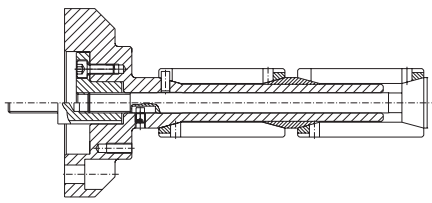
If you want to clamp very long workpieces, these mandrels are designed for two clamping sleeves lying behind each other. Fixture of the collet chuck is carried out according to customers' wishes. In most cases the chuck body is designed with a cylindrical flange, but a short taper fixture is also possible anytime. As a matter of course an intermediate flange can also be attached.

Facts and figures:

- for clamping sleeves
- power-operated
- with or without fixed end stop
- with pull-down effect
- different sizes and chucking ranges
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





SPECIAL COLLET CHUCKS FOR INTERNAL CLAMPING, SCREW-SPRING CLAMPING, SINGLE-TAPER CLAMPING SLEEVES

Description:

We produce rotating clamping fixtures for internal clamping with helical spring clamping for single-taper clamping sleeves.

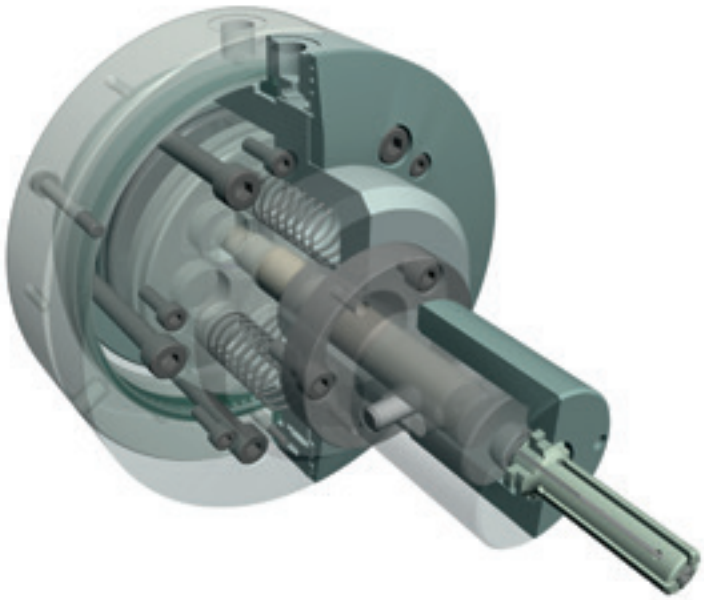
In this device the mandrel remains axially fixed. The clamping sleeve is equipped with a collar. A retaining ring holds the clamping sleeve firmly to this collar. A cross-pin leads through the retaining ring and the compression mandrel, via which the clamping sleeve is drawn backwards over the mandrel. This is achieved by the helical springs integrated into the collet chuck. Unclamping is done via compressed air. Impingement on the collet chuck by means of compressed air moves the compression mandrel forward, the clamping sleeve detaches itself from the mandrel and the workpiece can be removed. The compressed air is fed in via a stationary distributor ring. This distributor ring lies on the chuck body by means of a plastic ring. Exchange of the clamping sleeve must always be done in clamped condition.

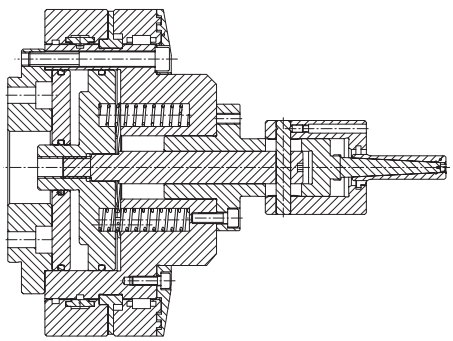
The collet chuck is tailored to your individual requirements. Clamping range, rotational speed etc. will be manufactured according to customers' preferences.

Facts and figures:

- for clamping sleeves for internal clamping
- clamping with helical springs
- pneumatic unclamping via distributor ring
- different sizes and chucking ranges
- any fixtures via intermediate flange
- clamping pressure 6 bar

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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SPECIAL COLLET CHUCKS FOR INTERNAL CLAMPING, SCREW-SPRING CLAMPING, DOUBLE-TAPER CLAMPING SLEEVES

Description:

We produce rotating clamping fixtures for internal clamping with helical spring clamping.

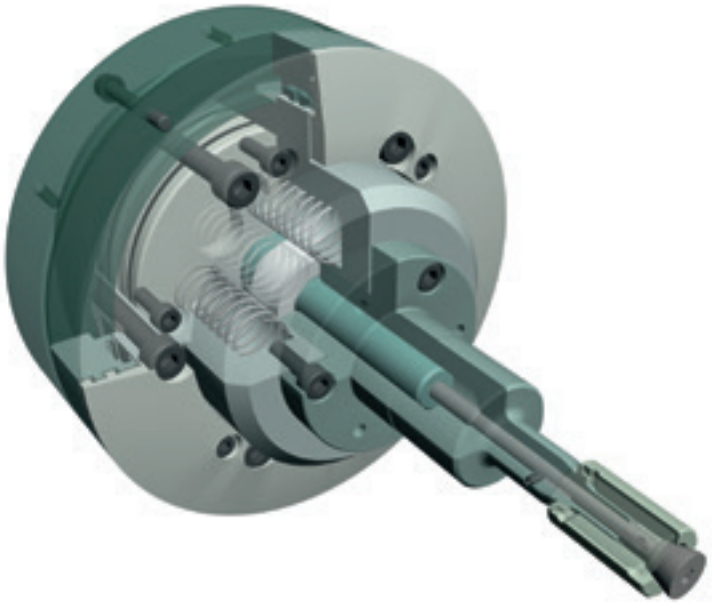
The mandrel is drawn back by the helical spring, thereby drawing the clamping sleeve back in the direction of the chuck body and opening it, and the workpiece is clamped. Unclamping is done via an integrated single-acting piston. The compressed air is fed to the cylinder area via a fixed distributor ring. This distributor ring lies on the chuck body by means of a plastic ring.

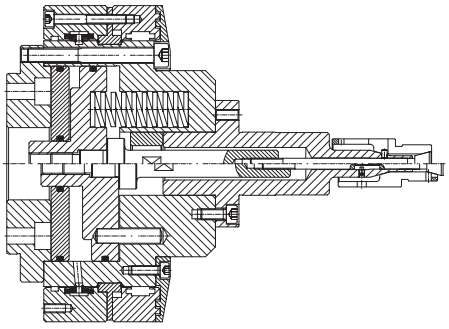
Please note that the collet chuck can only be unclamped if the spindle is stationary. Exchange of the clamping sleeve must always take place in unclamped condition. The collet chuck is tailored to your individual requirements. Clamping range, rotational speed etc. are all geared to customers' needs.

Facts and figures:

- for clamping sleeves for internal clamping
- clamping with helical springs
- pneumatic unclamping via distributor ring
- different sizes and chucking ranges
- any fixture via intermediate flange
- clamping pressure 6 bar

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





SPECIAL COLLET CHUCKS FOR INTERNAL CLAMPING POWER-OPERATED WITH DIRECT EXPANDING COLLET

Description:

We manufacture special collet chucks for direct expanding collets in different designs with differing chucking ranges. The collet chuck consists of a basic fixture onto which the mandrel is screwed. The expansion sleeve is drawn back for clamping by means of the draw-back rod and the cross-pin. When unclamping, the expanding collet is pushed forward again by the draw-back rod and the cross pin, the expanding collet closes, and the workpiece can be removed.

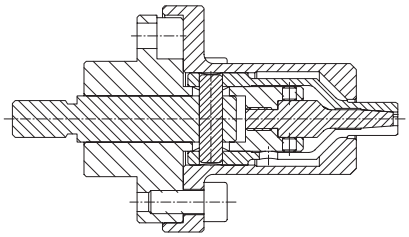
Depending on the application this type of mandrel can be equipped with a stationary end stop, so that the workpiece for clamping is always clamped in the same axial direction – because during the clamping process a pull-down effect is created that pulls the workpiece onto the flat surface of the end stop. This type of expanding mandrel is especially suited to the clamping of very short workpieces.

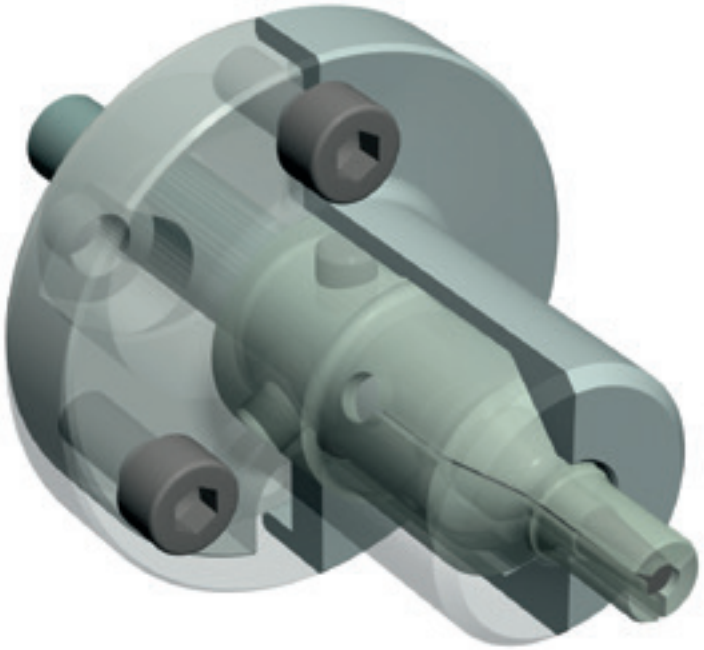
Fixation of the collet chuck is carried out according to customers' wishes. In most cases, the chuck body is designed with a cylindrical flange, but a short-taper fixture is also possible anytime. Naturally an intermediate flange can be attached at any time, too.

Facts and figures:

- for direct expanding collets
- power-operated
- with pull-down effect
- suitable for clamping very short workpieces
- with or without fixed end stop
- various sizes and clamping ranges
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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SPECIAL COLLET CHUCKS FOR INTERNAL CLAMPING ROTATING, PRESSURE-SPRING CLAMPING

Description:

We produce rotating clamping fixtures for expanding collets with pressure-spring clamping. The axially fixed expanding collet is opened by the forward movement of the mandrels by means of pressure springs, and the workpiece is clamped. The expanding collet is unclamped by compressed air, which pushes the mandrel backwards, thereby closing the expanding collet.

The compressed air is fed in via a stationary distributor ring. The clamping fixture may only be used if the spindle is stationary, to avoid damage to the distributor ring. The expanding collet is exchanged in unclamped condition.

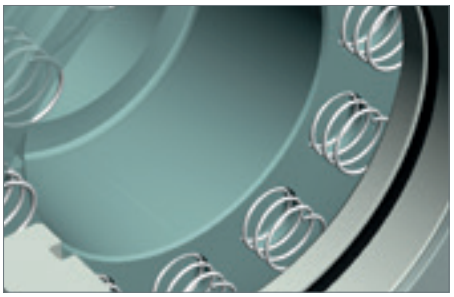
With these very compact collet chucks with pressure-spring clamping, only minimal clamping forces are attained. They are therefore unsuitable if large forces are applied to the workpiece for clamping. These devices are used especially in the laser marking and laser welding machine sector, and as test spindles.

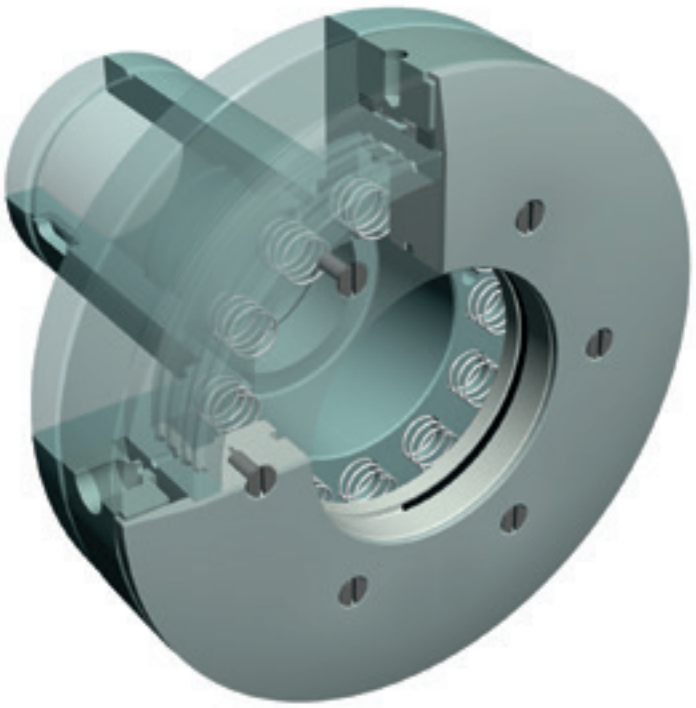
These collet chucks are manufactured according to customer drawings or to our own designs within the shortest of deadlines.

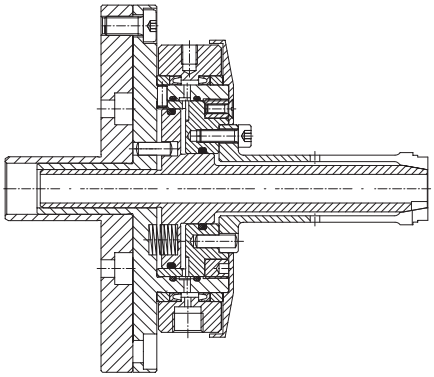
Facts and figures:

- for expanding collets
- clamping with pressure springs
- pneumatic unclamping via distributor ring
- various sizes and clamping ranges
- any fixtures
- clamping pressure 6 bar

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







SPECIAL COLLET CHUCKS FOR INTERNAL CLAMPING SEGMENTED CLAMPING MANDRELS

Description:

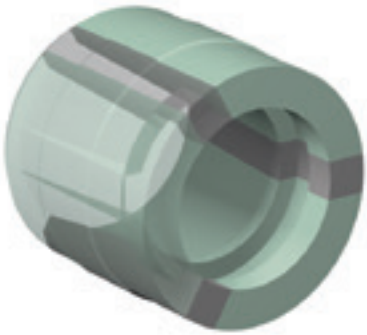
Besides steel clamping sleeves we also produce segmented clamping mandrels for vulcanized clamping sleeves with hardened steel segments. Those mandrels are developed for your special needs based on the Nann standard programme. Main applications are turning, grinding, milling, tool cutting, balancing, centring, drilling, etc. We offer these segmented clamping mandrels in different designs: with fixed clamping sleeves activated by compression or tension or with a fixed clamping mandrel, whereby the sleeve is pulled or pushed.

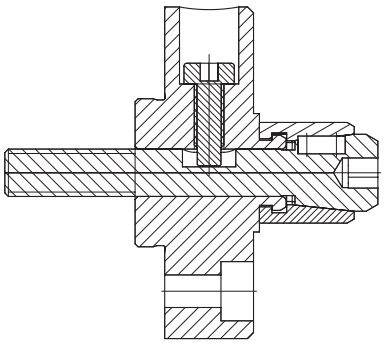
It doesn't matter which kind of actuation you require, manual, power-operated, pneumatic or hydraulic actuation, Nann is your expert partner. With these special solutions too, we assure you high Nann quality and short delivery times.

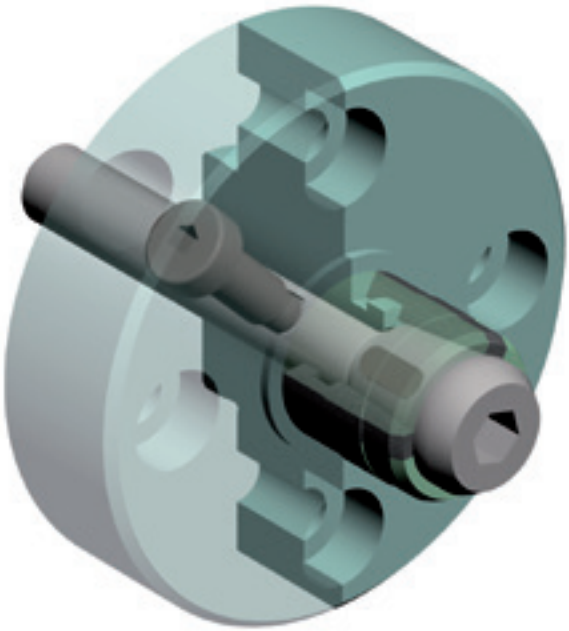
Facts and figures:

- for segmented clamping sleeves
- activated by compression as well as tension
- various sizes and clamping ranges
- any fixtures

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







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SPECIAL COLLET CHUCKS HESK AND HESK-R FOR INTERNAL CLAMPING

Description:
The proven collet clamping attachments type HESK and type HESK-R are suitable for numerous application scenarios. Apart from the further development of these devices for collets with bayonet, Nann also develops special collet chucks on the basis of these devices, as well as for both external and internal clamping. The collet chucks type HESK-R are frequently used for special applications.

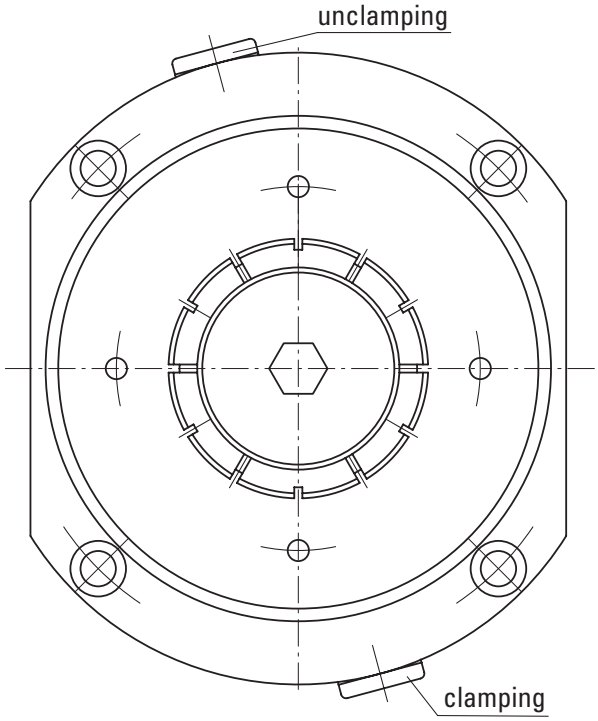
We manufacture for you:
- special collets for standard devices
- special devices with standard collets
- special devices with special collets

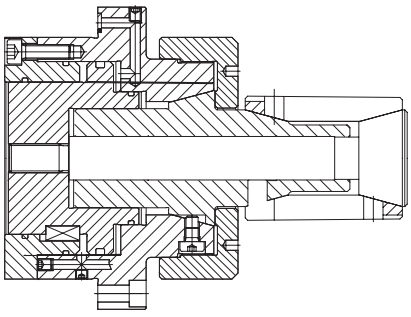
Operating mode:
With the standard devices, the clamping sleeve is designed as a double-action cylinder, and it closes and/or opens the collets. The collets themselves are equipped with a shoulder on the shaft, and firmly connected to the collet clamping attachments by means of a nut. These clamping devices are ideally suited to internal clamping of workpieces. For this, instead of the mounted collet, an axially stationary basic mandrel with the external contour of a collet is mounted and screwed into the housing with a union nut. For clamping of the workpiece, depending on the application, a single or double- taper clamping sleeve is used. During clamping, it is drawn onto the basic mandrel and expanded by means of a compression mandrel. This results in a pull-down effect, and the workpiece is drawn during clamping in the direction of the housing. These collet chucks can easily be designed for a workpiece end stop. The devices can also be designed differently if necessary, to suit your applications precisely.

With special applications, too, we assure you of high Nann quality and short delivery deadlines.

Facts and figures:
- for double tapered clamping sleeves
- with pull-down effect
- hydraulic clamping and unclamping
- various sizes and clamping ranges

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





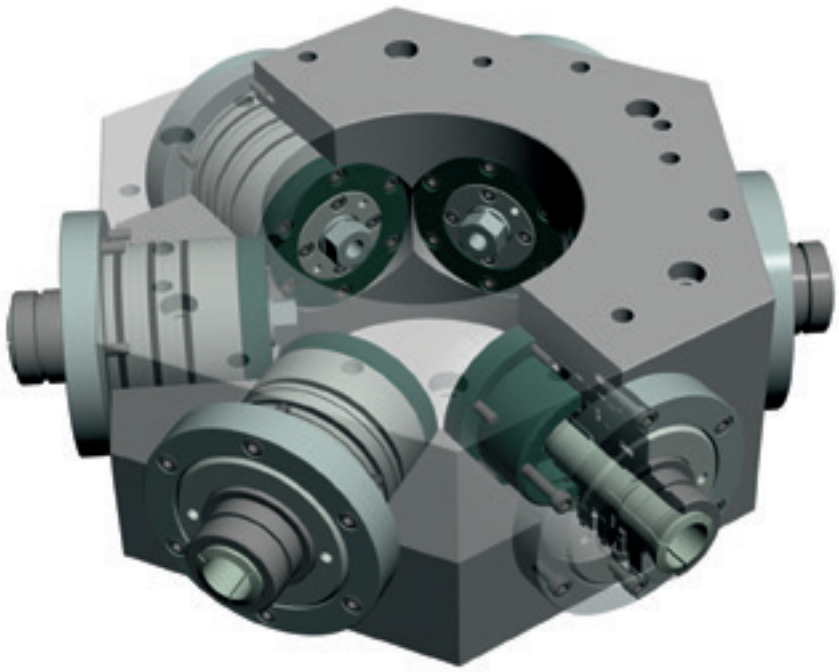
MULTIPLE CLAMPING DEVICES

Description:
Besides a large number of collet chucks as single devices, Nann also offers multiple clamping devices of numerous different designs. These clamping fixtures are specially designed for your requirements or manufactured according to customer drawings. Our technicians will be happy to advise you on how to solve your clamping problems. With these special solutions too, we assure you of high Nann quality and short delivery times.

We manufacture multiple clamping devices:
- for draw-back collets
- for deadlength collets
- for clamping heads
- for collets with bayonet
- collet stationary, clamping sleeve moves
- collet is drawn into collet chuck, pulldown effect, clamping sleeve stationary
- housing and clamping sleeve form a single component
- clamping sleeve integrated into housing
- any arrangement of clamping devices (e.g. in series or on rotary indexing table)
- clamping and unclamping only in certain stations or all stations simultaneously
- hydraulic or pneumatic actuation, also with plate spring clamping

Our multiple clamping devices are used in the most varied sectors, e.g. in tool production, as milling or grinding devices, etc.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



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MULTIPLE CLAMPING DEVICES FOR DRAW-BACK COLLETS, HYDRAULIC

Description:

Nann manufactures multiple clamping devices with hydraulic actuation in different shapes for different chucking ranges. In the clamping fixture shown, 8 draw-back collets are arranged in one row and 16 draw-back collets in two rows of 8 collets respectively.

The housing is of high-strength aluminium, the clamping sleeves are of steel because of the high wear resistance and pressed into the housing.

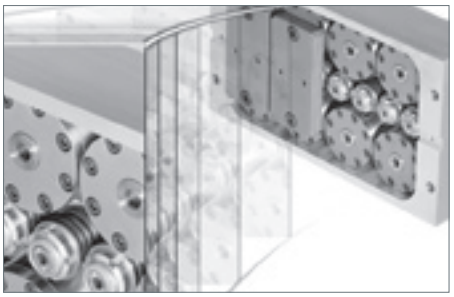
The individual collets are drawn into the clamping sleeve by plate spring packs, which closes the collets and clamps the workpieces. Because of the integrated plate spring clamping, the multiple device is self-retaining. For unclamping the device is hydraulically actuated, the collets are pushed forward out of the clamping sleeve, and the workpieces can be removed. The clamping sleeve serves as a stationary end stop, and during clamping the workpieces are drawn onto the flat surface of the clamping sleeve because of the pull-down effect. This means that all the workpieces in clamped condition have the same position in the axial direction.

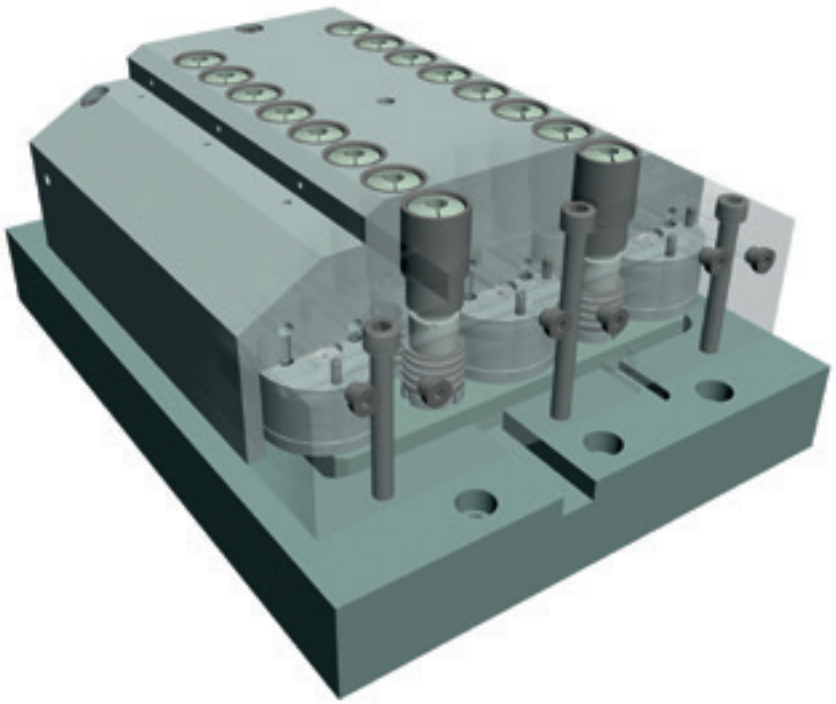
To mount the collet, the clamping sleeves have to be in their front position, i.e. the one in which the collet is opened. Then the collet can be pushed into the clamping sleeve and screwed in.

Facts and figures:

- for draw-back collets
- hydraulic actuation
- plate spring clamping
- self-locking
- with pull-down effect
- clamping pressure max. 80 bar
- various sizes and clamping ranges

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





MULTIPLE CLAMPING DEVICES WITH COLLET CLAMPING ATTACHMENTS HESK OR HESK-R-SK

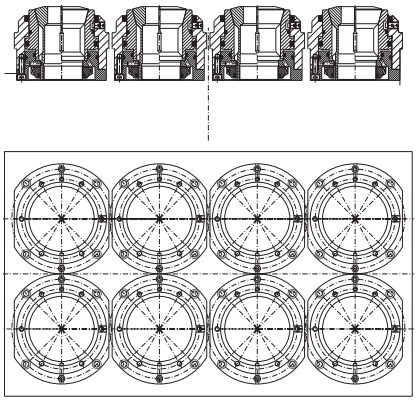
Description:
To realize multiple clamping devices, Nann offers collet clamping attachments of type HESK or HESK-R with hydraulic actuation. The collet clamping attachments of Type HESK-R have their own housing, while the Type HESK is suitable for installation in a customized housing.

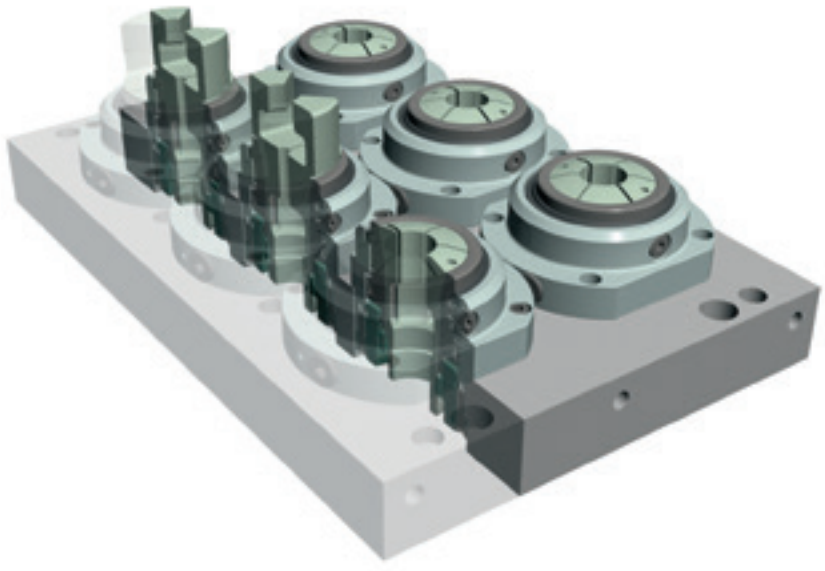
Operating mode:
With the collet clamping attachments, the clamping sleeve is designed as a double-action cylinder and it closes and/or opens the collet. The collets are equipped with a shoulder and firmly screwed to the collet clamping attachments by means of a nut. The collet clamping attachments are distinctive for their very low structural mass and high clamping force. The collet is absolutely stationary and the clamping path requires no adjustment. Because of their design, the collet clamping attachments are extremely well suited to clamping short workpieces, and a stationary end stop, or a collet with stepped bore, can be mounted at any time. Normally the collets are exchanged from below, but if required the collet can also be exchanged from above.

Application:
The collet clamping attachments are used wherever clamping nests have to be realized in confined spaces. This applies to applications in mechanical engineering as well as in fixture construction. Collet clamping attachments are suitable for integration into stationary plates as multiple clamping pallets as well as rotary transfer tables. For setting up on rotary transfer tables, a controlled rotational feed is available that enables collet clamping attachments alone to be actuated at the loading and/or unloading station. The other collet attachments remain clamped. We provide customized multiple clamping pallets according to your requirements, completely mounted including baseplates or as individual collet clamping attachments with collets that you can mount on your own fixtures yourself.

Facts and figures:
- for draw-back collets with threads or bayonet
- also for clamping heads
- compression-activated or tension-activated
- hydraulically actuated
- clamping pressure max. 80 bar
- various sizes and clamping ranges

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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MULTIPLE CLAMPING DEVICES WITH COLLET CLAMPING ATTACHMENTS HESK-R-SK FOR CLAMPING HEADS

Description:

Apart from the proven collet clamping attachments of type HESK-R for draw-back collets, Nann also offers collet clamping attachments for clamping heads. We offer two different types of collet clamping attachments for the realization of multiple clamping devices, and any arrangement of these devices in a baseplate is possible.

In the first variant of collet clamping attachments type HESK-R-SK, the clamping head is drawn into the housing during the clamping procedure, and the clamping head closes as a result of the taper integrated into the housing. The axial movement of the clamping head creates a pulldown effect, desired in many cases, and the workpiece is pulled against the flat surface of the integrated end stop (optional).

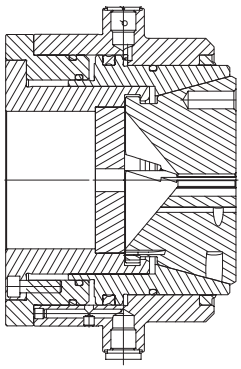
In the second variant, the clamping head is axially stationary, and the clamping procedure is carried out using a moveable clamping sleeve which, during clamping of the workpiece, exerts an axial movement in the direction of the clamping head. An option stationary end stop can also be integrated on these machines.

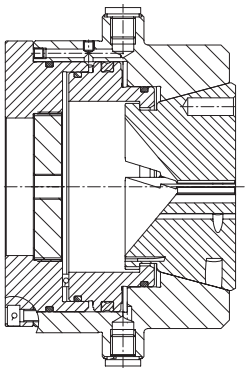
The collet clamping attachments type HESK-R-SK feature a combination of all the benefits of the proven collet clamping attachments type HESK-R and those of the clamping heads.

Facts and figures:

- for clamping heads
- compression-activated or tension-activated
- clamping head exchange via change fixture
- stationary end stop integrated on request
- hydraulically actuated
- clamping pressure max. 80 bar

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





MULTIPLE CLAMPING DEVICES WITH COLLET CLAMPING ATTACHMENTS HESK IN SPECIAL DESIGN

Description:

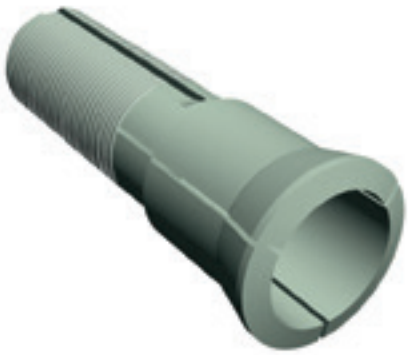
The clamping fixture is a stationary device with a radial arrangement of six collet clamping attachments for standard draw-back collets. The lines for actuating the collet clamping attachment are connected to a rotational feed. The collet clamping attachments are activated hydraulically. Depending on the design of the rotational feed, a single device or several devices simultaneously can be actuated. The movement that clamps and opens the collet is created by means of hydraulic pressure. The collet is stationary in the axial direction and is secured against distortion by means of a slot nut.

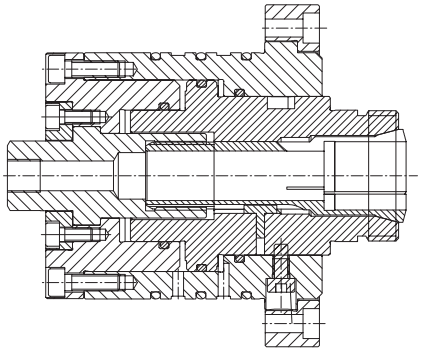
To mount the collet, the clamping sleeve must be in the rear position, i.e. the position in which the collet is opened. Then the collet can be pushed into the clamping sleeve. Here attention should be paid to the mounting location of the slot nut. After this, the collet is drawn to the end stop with the key. When mounting or removing the collet, please note that the collet is always relieved, i.e. the clamping sleeve has to be in the rear position in which the collet is opened.

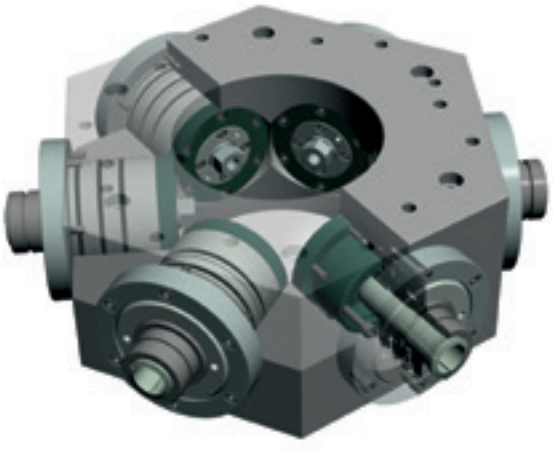
Facts and figures:

- for draw-back collets
- axially stationary collet
- hydraulically actuated
- with rotating distributor
- clamping pressure max. 80 bar

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







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MULTIPLE CLAMPING DEVICES FOR HYDRAULIC CLAMPING DEVICES WITH MECHANICAL OPERATION

Description:

We manufacture multiple clamping devices with mechanically and hydraulically actuated clamping devices arranged around an indexing table. In the clamping fixture shown here, eight clamping devices surround a round baseplate, and pneumatic or hydraulic connections are not required. The individual clamping devices are equipped with plate spring clamping.

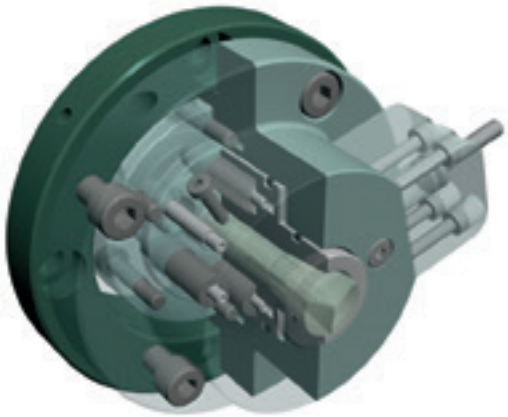
The plate springs press the clamping sleeve forwards so that the axially stationary draw-back collet is closed. The collet is secured against distortion with a pin. The collet is unclamped by a mechanically operated piston. The piston housing contains oil that moves the clamping sleeve to the back when the mechanical piston is actuated. This means that the clamping device is self-retaining and a hydraulic connection is unnecessary.

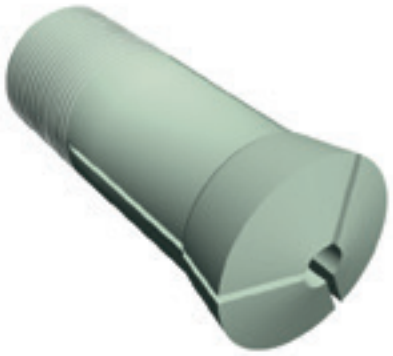
To mount the collet, the clamping sleeve has to be in its rear position, that is, the position in which the collet is opened. Then the collet can be pushed inside the clamping sleeve. Here attention has to be paid to the location where the distortion protection has been mounted. After this, the key is used to draw the collet to the end stop. When mounting or removing the collet, please note that the collet is always relieved, i.e. the clamping sleeve has to be in the rear position in which the collet is opened.

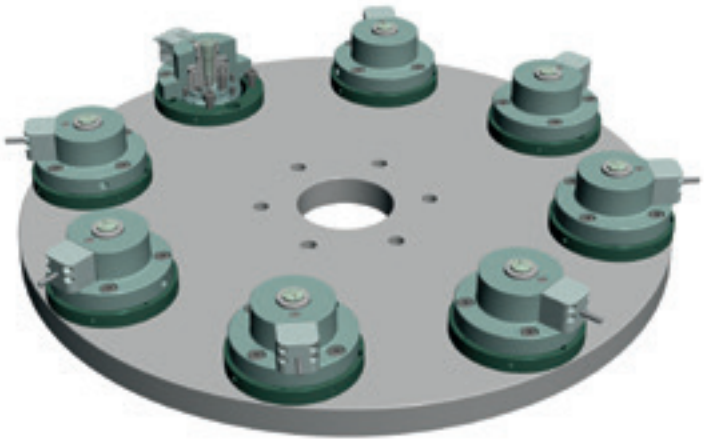
Facts and figures:

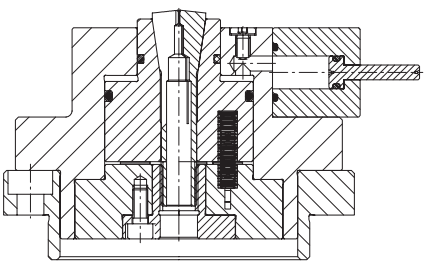
- for draw-back collets
- mechanically actuated
- plate spring clamping
- collet axially stationary
- no connection lines required
- various sizes and chucking ranges

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.









TOOL CLAMPING

To clamp all kinds of tools, modern production requires flexible and repeat-accurate clamping fixtures. Each individual application places different requirements on the clamping fixture. No clamping fixture can cover all the requirements perfectly – and especially when precision is needed, no compromises must be made.

With our own developments as well as with clamping fixtures based on the experience of our customers, we cover the whole range of tool clamping.

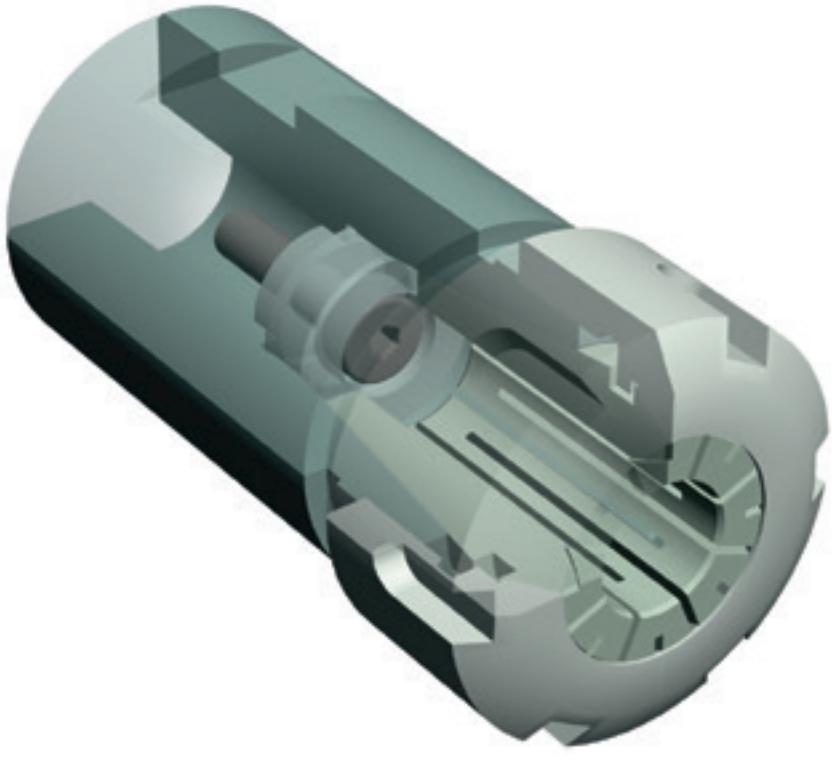
As well as standardized collets and collet chucks, the focus here is on the manufacture and also the design of customized special solutions in accordance with customers' requirements. Our primary concern is to manufacture quality products with a high degree of flexibility, in order to satisfy our customers' exacting requirements.

We offer our customers objective consulting geared towards the special application sector. With these special solutions, too, we guarantee you the customary high Nann quality and short delivery times.

We offer:

- special collets based on standard collets
- pure special collets
- collet chucks

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



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TOOL CLAMPING SPECIAL COLLETS

Description:
Apart from a large number of standard collets in the tool clamping sector, Nann also offers many varied types of special collets. These special collets are manufactured to Nann designs as well as customers' drawings.

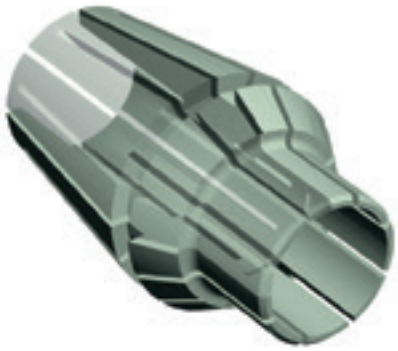
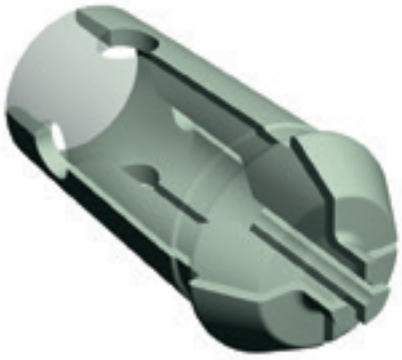
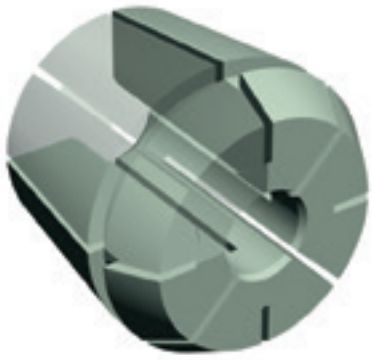
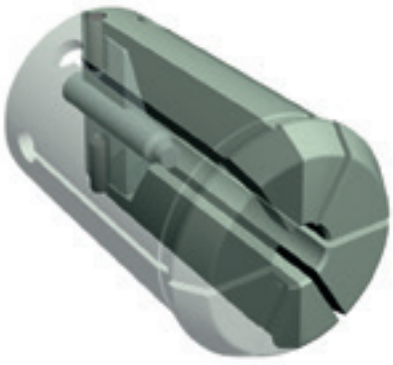
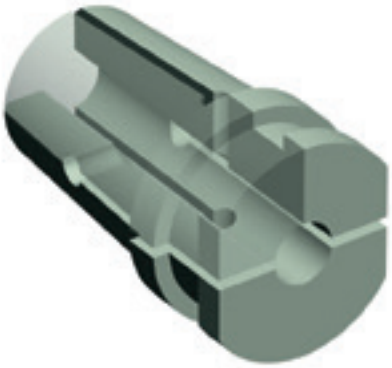
We manufacture collets for tool clamping in stainless design or in other special materials. If required, the collets can also be coated.

One-sided or double-slit collets for workpiece clamping can be equipped with a front part. Note here that no high clamping forces can be transferred, especially if clamping does not take place along the full length of the clamping bore. If overly high clamping force is required, this could make the collet fracture at its front part. Naturally these collets are also available in shortened designs. Note that the number of slots on the collet may vary. One-sided slit collets for tool clamping can also be designed with end stops. To realize this, the bore on the rear side of the collet is freely ground so that a fixed or adjustable end stop can be integrated.

We will be glad to receive your suggestions in order to fine the best solution for your clamping problem. With these special solutions, too, we guarantee you the customary high Nann quality and short delivery times.

Facts and figures:
- special collets based on of standard collets
- pure special collets

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.

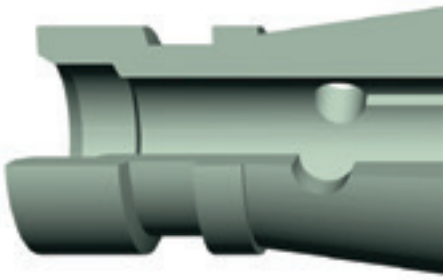
TOOL CLAMPING DIRECT COLLETS

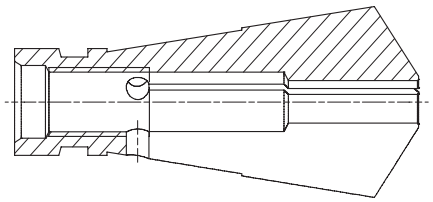
Description:
We manufacture direct collets for tools with cylindrical shafts in special design. The collets of this type fit directly into the taper of the machine spindle. The collets are clamped either with the draw bar or a feed groove. As well as standard collets we also manufacture special collets to Nann designs or customer's drawings.

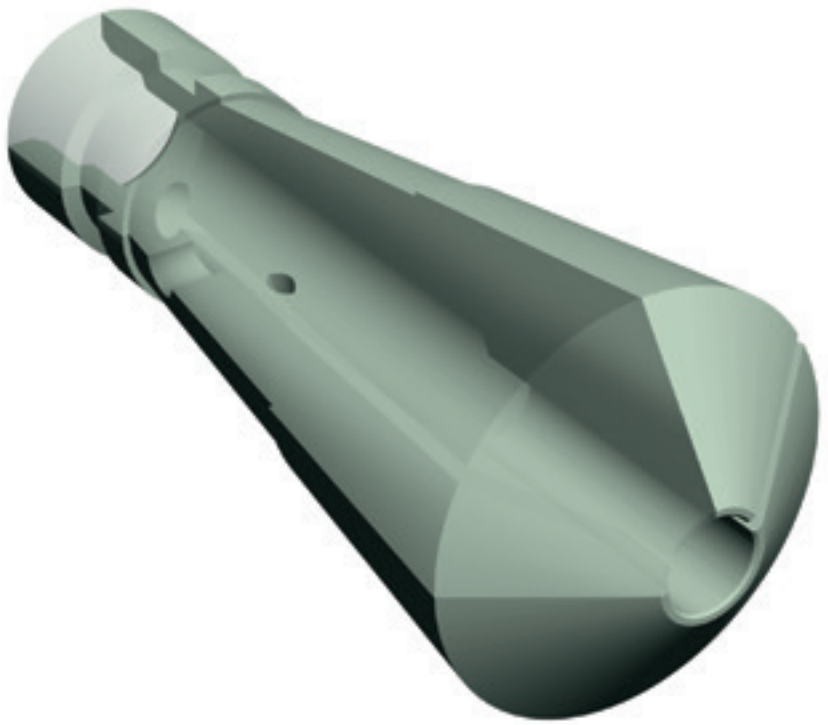
We manufacture special collets:
- with extended taper
- with offset taper
- with special taper etc.

Facts and figures:
- direct collets for tools with cylindrical shafts
- pure special collets

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







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TOOL CLAMPING SPECIAL COLLET CHUCKS, TOOL HOLDING FIXTURES

Description:

We manufacture collet chucks for tool clamping and tool holding fixtures in special designs.

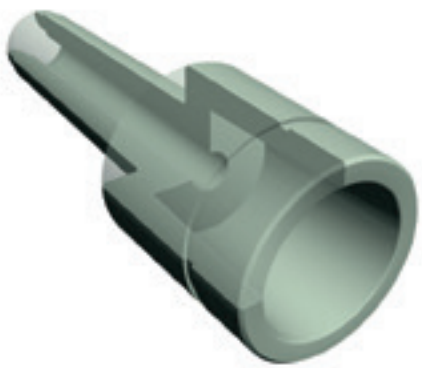
Besides a large number of stock standard collet chucks, Nann also offers special collet chucks for tool clamping according to its own designs or customer drawings. Regardless of whether you need a standard collet chuck with a special clamping collet, a special nut, or a special collet chuck for standard collets – Nann is always the right partner for you.

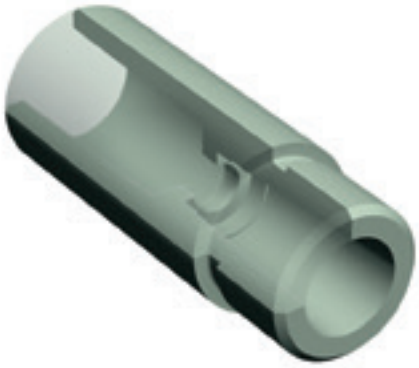
We manufacture collet chucks for double taper collets or other tool holding fixtures with any fixture possibilities required e.g. cylindrical fixture, outer taper, inner taper or type HSK, etc., tailored precisely to your application. Reductions for double-taper collets, for fixture of small collets in already existing collet chucks, can be manufactured anytime.

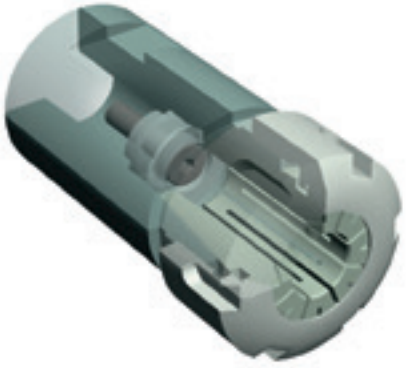
Facts and figures:

- special collet chucks with cylindrical fixture
- special collet chucks with quick release taper, Morse taper or bore-taper fixture
- special collet chucks with HSK fixture
- special collet chuck with flange fixture
- tool holding fixtures
- reductions
- special clamping nuts

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







INDEXING UNITS

Apart from a broad range of standard indexing units we also manufacture special units tailored to your individual application. We produce numeric indexing units in single- or multi-spindle design, and also units with swing-out spindles (2nd axis). Naturally, indexing units can be supplied with special housings and any spindle distance required.

Whatever you need – an indexing unit with or without clamping cylinder, with hydraulic or pneumatic actuation, Nann is your competent partner. If a clamping cylinder is used, it is mounted onto the rear end of the spindle. The clamping cylinders are available either as single-action or double-action. Single-acting clamping cylinders are primarily used for actuation of draw-back collets mounted in the jaw fixture of the spindle. Double action cylinders are needed for collets, collet chucks with deadlength collets, expanding mandrels and jaw chucks. Depending on the size and application required, the indexing units are equipped with a worm drive, or indexing takes place via gears.

We manufacture for you:

- single- and multi-spindle indexing units
- spindle distance made to request
- indexing units with second axis
- with worm drive
- with indexing via gears
- for collets, expanding mandrels, jaw chucks
- with or without hydraulic or pneumatic clamping cylinder
- with spring actuated collet clamping
- with faceplate
- with or without spindle clamping
- drives according to customer requirements

We will be glad to listen to your suggestions and your experiences with designing special indexing units for your application.

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.

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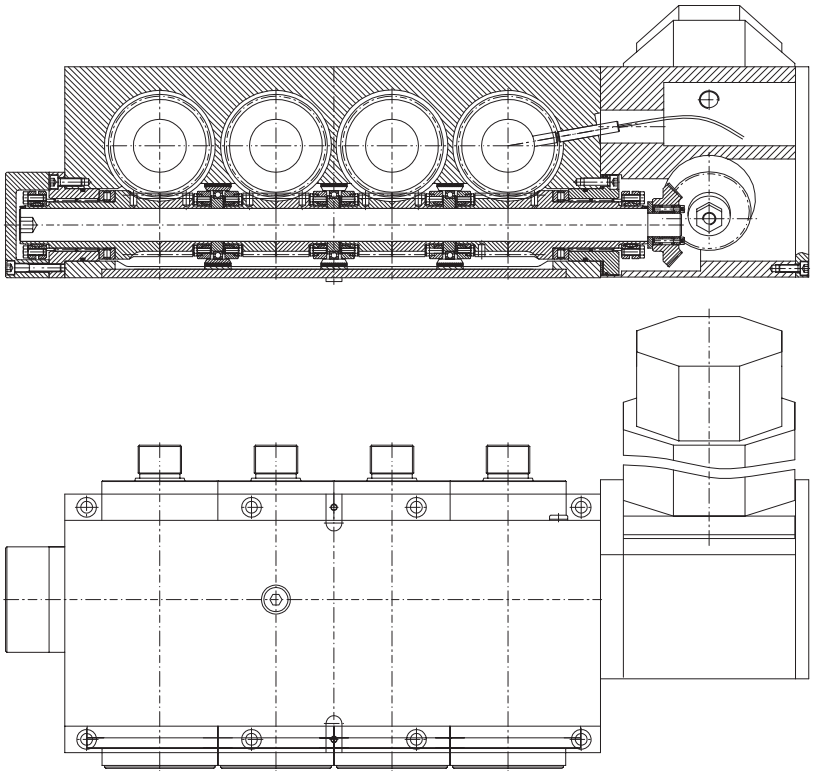
INDEXING UNITS NT 11, 4-SPINDLES

Description:
Based on the proven numerical indexing units of Type NT, we manufacture special indexing units specially for your application.

In the indexing unit type NT 11.4 pictured below with maximum height of 100 mm, four spindles are integrated into a combination housing. The spindles with a spindle distance of 88 mm lie on bearings at the front and back respectively on tapered roller bearings and are equipped in the front bearing housing with a slit and tapered clamping system. This clamping system can be actuated hydraulically and, in clamped condition, is connects the spindles firmly with the housing. Via a common worm shaft, the worm wheels of each spindle are driven synchronously. The position of the individual spindles relative to the others can be adjusted by altering the worm drive. Mounted on the common worm shaft is an incremental position encoder. The worm shaft is driven by a DC or AC motor.
To establish the reference point, one of the spindles actuates a contactless limit switch. Because of the worm/ worm wheel gear reduction, the zero-mark on the incremental encoder normally corresponds to one spindle revolution depending on the gear reduction ratio (usually 1:72). A gear housing is screwed onto the housing of the indexing unit. The motor attached to it drives the worm shaft via a gear and thus the spindles as well. The shape and mounting location of the gear housing depends on the customer's wishes. The housing of the indexing units, the gear housing and the connection chamber for the limit switch are filled with air. The spindles of the indexing unit are specially designed, and the indexing unit has no collet clamping.

We manufacture for you:
- single- and multi-spindle indexing units
- any spindle distances
- worm drive
- special spindle
- with or without spindle clamping
- any drive, e.g. Fanuc Servomotor
- any mounting position of drive

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



INDEXING UNITS NTZ-31, 3-SPINDLES WITH SECOND AXIS

Description:
Based on the proven numerical indexing units of Type NTZ we manufacture special indexing units to suit your application precisely. In the indexing unit depicted below, 3 spindles have been integrated into a housing.

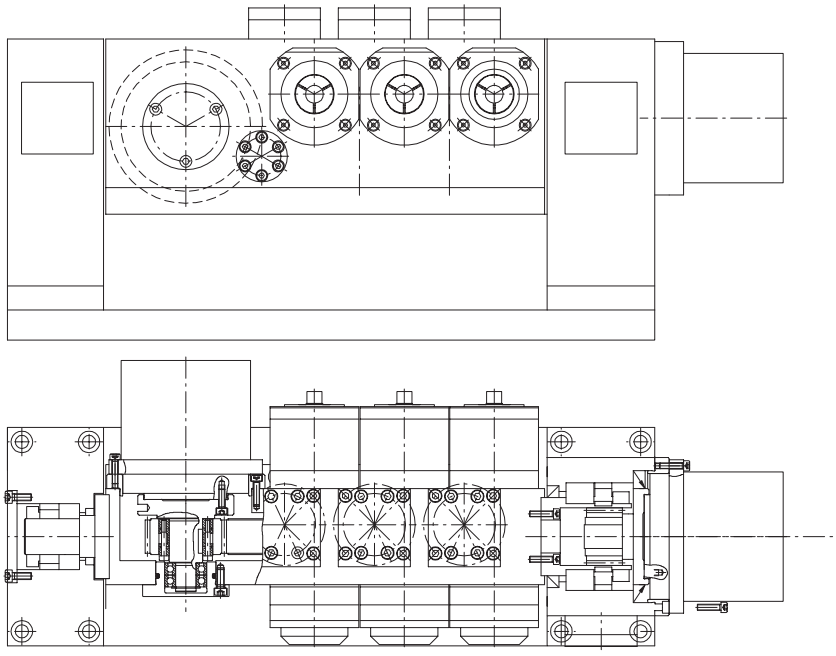
The spindles at the front are on spindle bearings, and on a grooved ball bearing at the back. Located between the bearings are the drive gear and the clamping system. This clamping system is hydraulically actuated and prevents distortion of the spindles if the automatic controller is switched off. Via an intermediate gearwheel respectively, the spindles are connected to each other and to the drive motor. The position of the individual spindles relative to each other is fixed ex works via a Spieth bushing.

The drive motor (Harmonic Drive) has a gear reduction of 1:100 and an integrated incremental encoder. It drives the first spindle via an intermediate wheel and thus all further spindles. Part accuracy and repeat accuracy are determined by the gears and their play. The gear transmission ratio is chosen in such a way to eliminate offset via several spindle revolutions. The repeatability is thus very high.

The spindles of the indexing unit are manufactured in standard design, the indexing unit has spring actuated collet clamping, and unclamping takes place hydraulically. The clamping system for spindle-clamping only has one hydraulic connection, so that all spindles are always clamped simultaneously. The complete indexing unit is on two bearing blocks and can be swivelled via a further servomotor (Harmonic Drive). This allows for a more efficient processing of workpieces.

We manufacture for you:
- single- and multi-spindle indexing units
- additional axes for swivelling of the indexing unit
- spindle distance 75 mm
- indexing via gears
- spring-actuated collet clamping
- use of standard collets
- with or without spindle clamping
- Harmonic Drive
- indexing speed max. 40 rpm

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



INDEXING UNITS NTZ-31, 5-SPINDLES

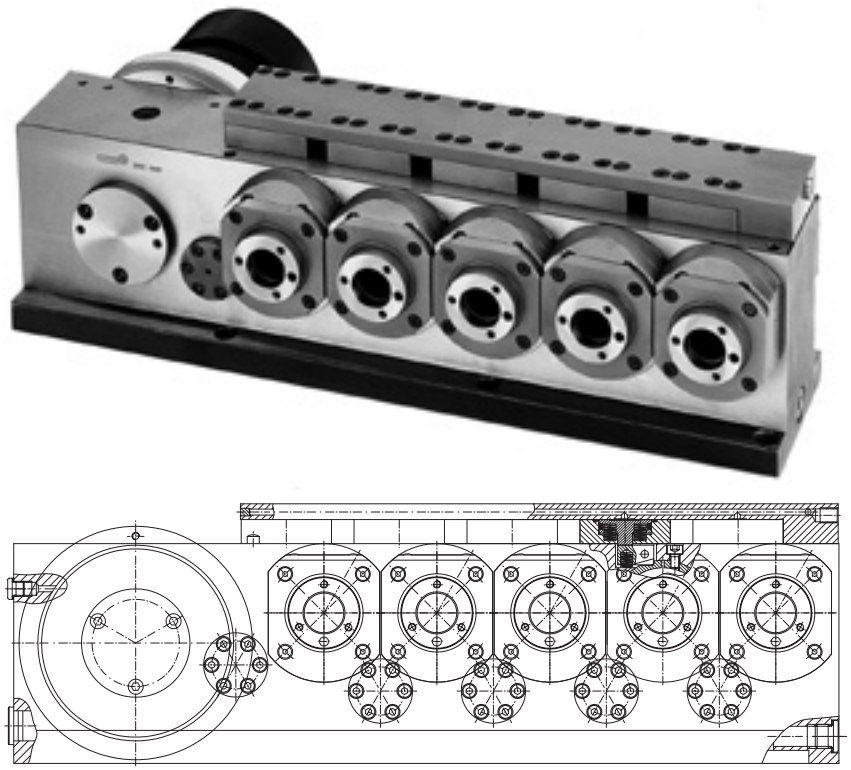
Description:
Based on the proven numerical indexing units type NTZ, we manufacture special indexing units especially for your application. In the indexing unit depicted below, 5 spindles have been integrated into a housing.

The spindles at the front are on spindle bearings, and on a grooved ball bearing at the back. Located between the bearings are the drive gear and the clamping system. This clamping system is hydraulically actuated and prevents distortion of the spindles if the automatic controller is switched off. Via an intermediate gearwheel respectively, the spindles are connected to each other and to the drive motor. The position of the individual spindles relative to each other is fixed ex works via a Spieth bushing.

The drive motor (Harmonic Drive) has a gear reduction of 1:100 and an integrated incremental encoder. It drives the first spindle via an intermediate wheel and thus all further spindles. The indexing and repeat accuracy is determined by the gearwheels and the play. The gear transmission ratio is chosen in such a way to eliminate offset via several spindle revolutions. The repeatability is thus very high. The incremental encoder of the drive motor has a zero mark as a reference point. Because of the gear reduction, selection of the right zero mark is enabled by an additionally integrated contactless limiter switch, actuated once per spindle revolution. The spindles of the indexing unit are manufactured in special design, and the indexing unit has no collet clamping. The clamping system for spindle-clamping only has one hydraulic connection, so that all spindles are always clamped simultaneously.

We manufacture for you:
- single- and multi-spindle indexing units
- spindle distance 75 mm
- indexing via gears
- special spindles
- with or without spindle clamping
- Harmonic Drive
- indexing speed max. 40 rpm

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



SPINDLE UNITS

Alongside an extensive range of collets and collet chucks we also manufacture spindle units to customer drawings or Nann designs. In this sector, too, we also have many years of experience, and they flow into our product.

In most cases clamping of the workpiece takes place via draw-back collets or dead-length collets with different chucking ranges, and this makes for different sizes. Naturally clamping can also be done by means of other clamping fixtures, e.g. jaw chucks. Our product range also includes spindle units to clamp workpieces by means of internal clamping.

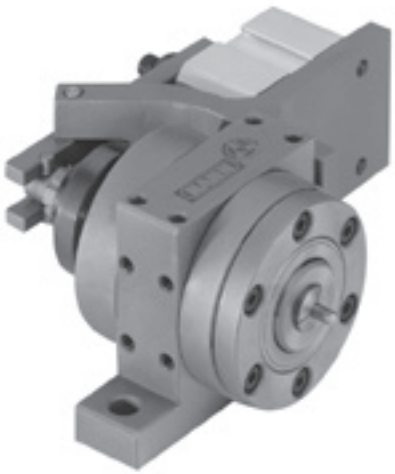
The motor to drive the spindle units is either supplied by Nann or installed by the customer. Our spindle units are used in the most varied areas of application, as e.g.

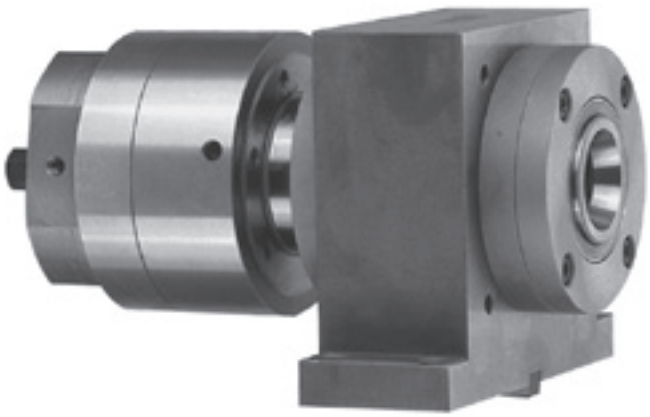
- test spindles
- assembly spindles
- guide bush carriers
- spindles for tools with drives, etc.

Facts and figures:

- for deadlength collets
- for draw-back collets
- for expanding collets
- for internal clamping sleeves
- with manually actuated clamping
- with pneumatic or hydraulic clamping cylinder
- clamping via plate springs – hydraulic unclamping
- clamping via plate springs – mechanical unclamping
- with manual drive
- with drive via synchronizing belts or spur gears
- with direct drive
- various rpm ranges

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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SPINDLE UNITS FOR DEADLENGTH COLLETS HYDRAULICALLY OPERATED – PLATE SPRING CLAMPING

Description:

We manufacture spindle units for deadlength collets with different chucking ranges.

These spindle units are mostly designed for plate spring clamping. To close the pressure collet, the plate springs press on the clamping sleeve, which is pushed forward. The collet is pressed against the union nut and closed.

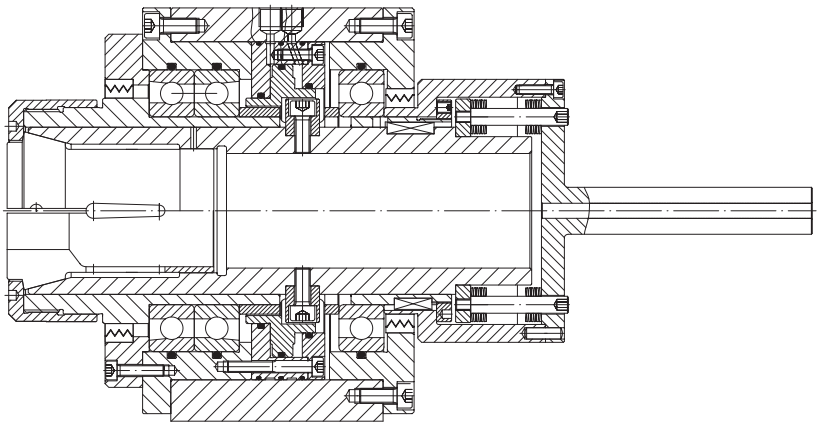
Unclamping takes place via a double-action piston. The return movement of the piston is operated hydraulically. The spindle is located on two spindle bearings and one grooved ball bearing. The outer rings of these bearings have play at their seats and are cushioned by O-rings. The spindles are driven via a flexible coupling. The device may only be operated in clamped condition.

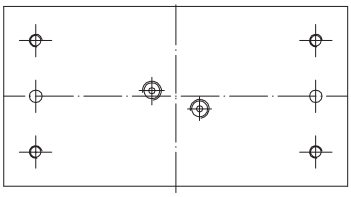
The motor is supplied by Nann or mounted by the customer.

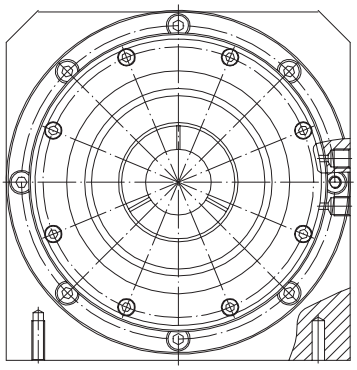
Facts and figures:

- designed for deadlength collets
- clamping via plate springs
- hydraulic unclamping
- clamping pressure up to 45 bar, depending on size
- piston travel 3 mm

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







SPINDLE UNITS FOR DEADLENGTH COLLETS PNEUMATICALLY OPERATED – DOUBLE-ACTION PISTON

Description:

We manufacture spindle units for deadlength collets in different designs and differing clamping ranges.

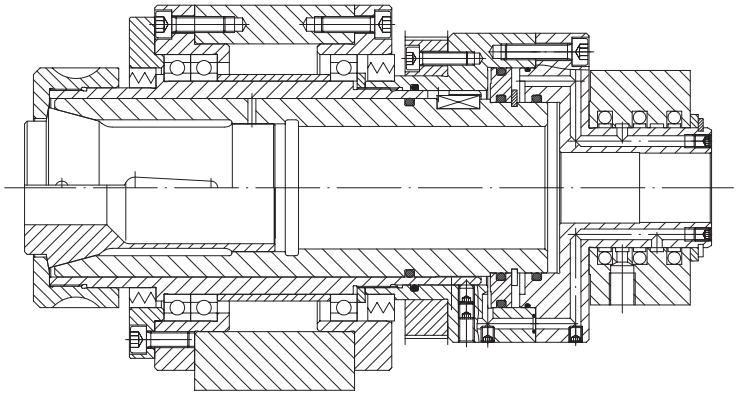
These spindle units operate with a pneumatic double-action cylinder. To close the deadlength collet, the piston presses on the clamping sleeve, which is pushed forward, and the collet is pressed against the union nut and closed.

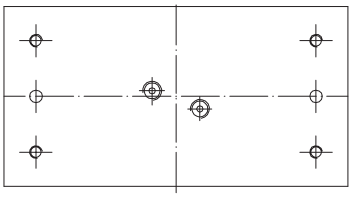
To open the collet, the piston is moved backwards via compressed air, the clamping sleeve moves backwards, and the collet opens. Compressed air feed takes place via a rotational feed. For closure there should always be air, while only a brief amount of air is required for opening. This spindle unit is driven via a synchronizing disk.

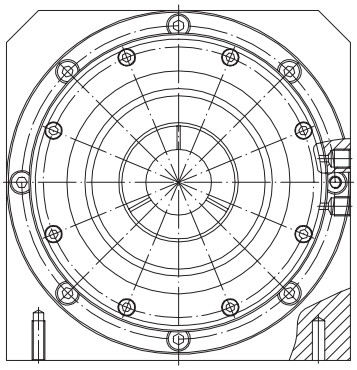
Facts and figures:

- designed for deadlength collets
- pneumatic clamping and unclamping
- clamping pressure 6 bar
- rotational speed max. 500 rpm

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







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SPINDLE UNITS FOR DEADLENGTH COLLETS PNEUMATICALLY OPERATED – PLATE SPRING CLAMPING

Description:

We manufacture spindle units for deadlength collets in various designs and with different clamping ranges.

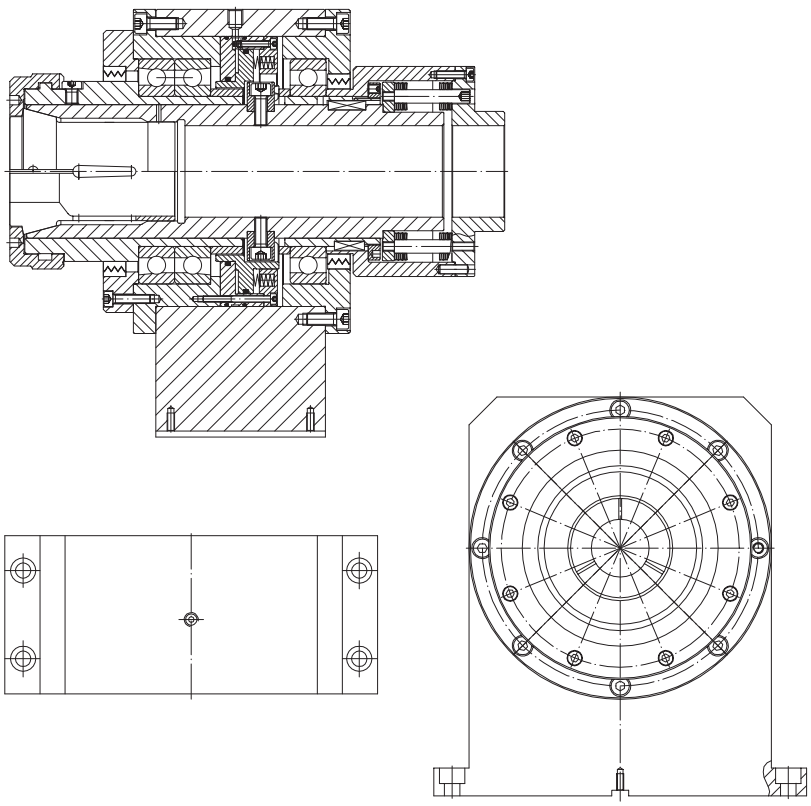
These spindle units are designed for plate spring clamping. To close the deadlength collet the plate springs press onto the clamping sleeve, which is pushed forward. The collet is pressed against the union nut and closed.

Unclamping takes place via a single-acting piston. The return movement of the piston is done via springs. The spindle is located on three spindle bearings. The spindle is driven by a clutch lever. The device may only be used in clamped condition. The motor is supplied by Nann or mounted by the customer.

Facts and figures:

- designed for deadlength collets
- clamping via plate springs
- pneumatic unclamping
- clamping pressure 6 bar, with pressure intensifier 12 bar
- piston travel 3 mm
- rotational speed max. 1200 rpm

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.



SPINDLE UNITS FOR DRAW-BACK COLLETS – PLATE SPRING CLAMPING

Description:

This spindle unit works via plate spring clamping. The draw-back collet is drawn into the fixture by means of plate springs and thus closed. Unclamping is done mechanically, by relieving pressure on the collet by means of a lever. This lever is actuated via a short-stroke cylinder.

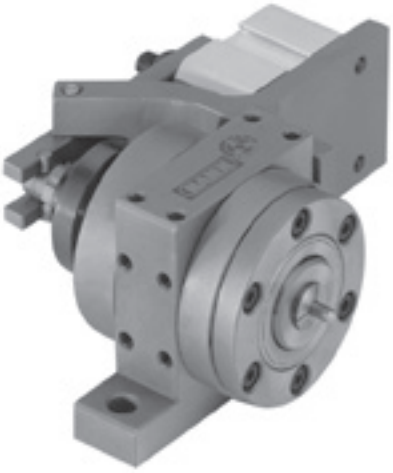
The spindle is located on three grooved ball bearings, one of the bearings is reworked to compensate axial play. The spindle is driven via a synchronizing disk with a toothed belt. The collet can only be unclamped while the spindle is in operation. The collet is secured against distortion inside its housing.

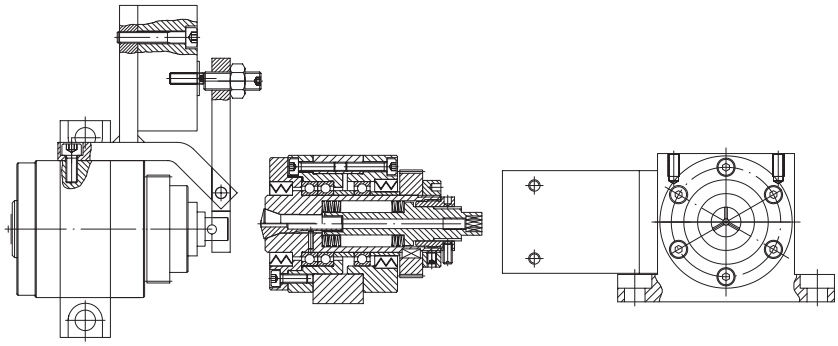
The motor is supplied by Nann or mounted by the customer.

Facts and figures:

- designed for draw-back collets
- clamping via plate springs
- mechanical unclamping
- clamping pressure 6 bar
- piston travel 3 mm
- rotational speed max. 1200 rpm

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





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SPINDLE UNITS FOR DRAW-BACK COLLETS – PLATE SPRING CLAMPING

Description:

These spindle units work via plate spring clamping. The draw-back collet is pulled into the fixture by plate springs and thereby closed. Unclamping takes place mechanically by using a single-acting lever to relieve pressure on the collet; the lever can also be designed as a double-acting lever.

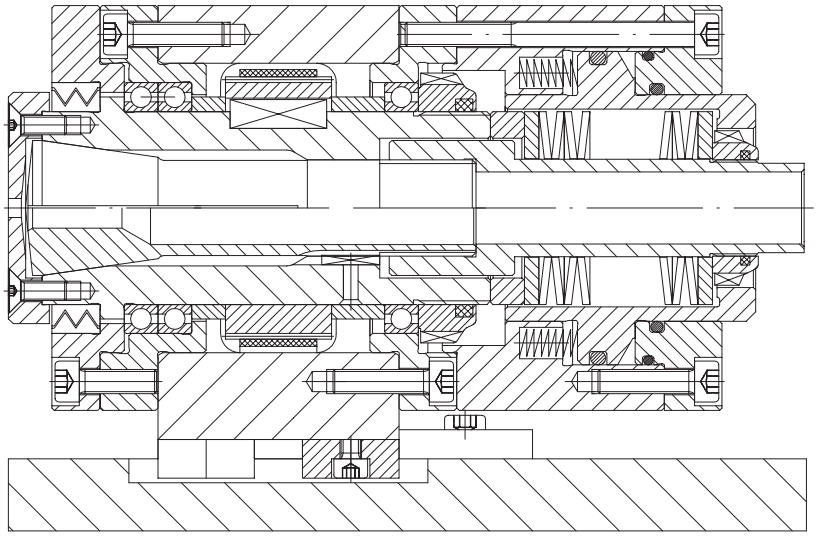
The spindle is located on two grooved ball bearings and one spindle bearing. The spindle is driven via a synchronizing disk with a toothed belt. The collet can be clamped and unclamped while the spindle is in operation. The collet is secured against distortion inside its housing.

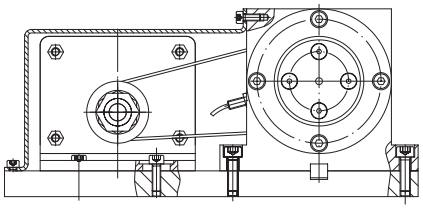
The motor is supplied by Nann or mounted by the customer.

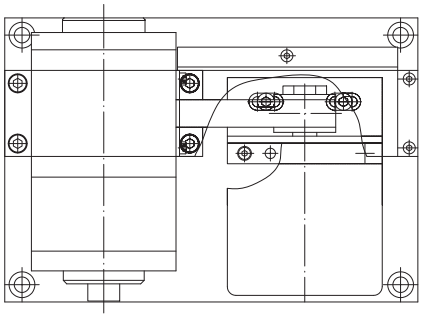
Facts and figures:

- designed for draw-back collets
- clamping via plate springs
- mechanical unclamping
- clamping pressure 6 bar
- piston travel 3 mm
- rotational speed max. 1200 rpm

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







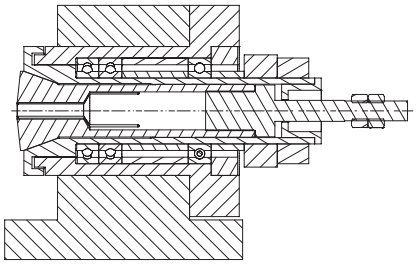
SPINDLE UNITS FOR DRAW-BACK COLLETS – MULTI-SPINDLE

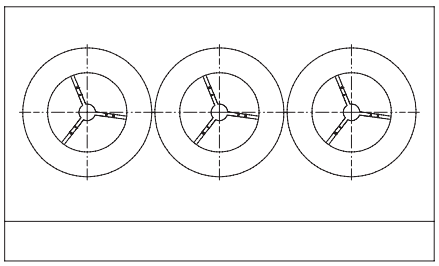
Description:
We manufacture spindle units for draw-back or deadlength collets with several spindles in a single housing, in various designs and with various clamping ranges.

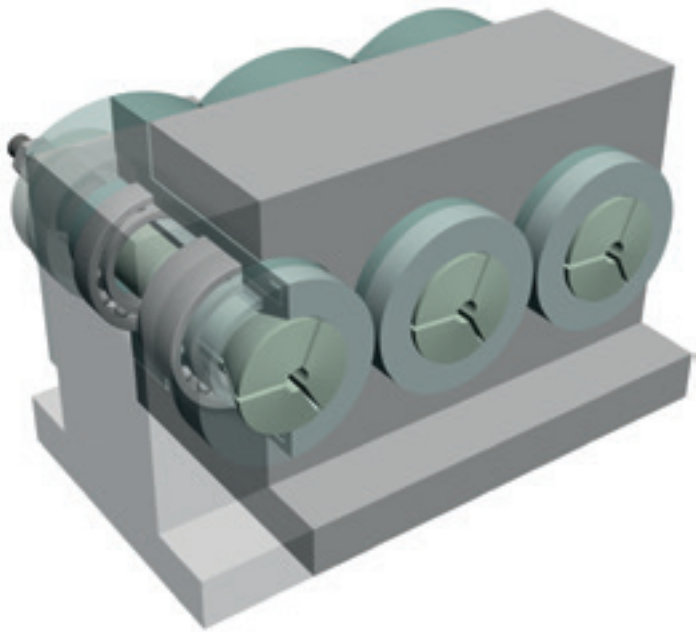
Depending on the application, these spindle units operate with spring clamping, are power-operated, or actuated pneumatically or hydraulically. The spindles are located on spindle bearings or grooved ball bearings. Depending on the application, the spindle unit is manufactured with deadlength or draw-back collets. If required, the collet can be equipped with an end stop; a through bore is also possible. Any spindle unit drive is possible, e.g. via toothed belt or synchronizing disk. The motor is supplied by Nann or mounted by the customer.

Facts and figures:
- designed for draw-back or deadlength collets
- several spindles arranged alongside each other
- any actuation
- rotational speed depending on application
- any drive

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.







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SPINDLE UNITS FOR DRAW-BACK COLLETS FOR INTERNAL CLAMPING PNEUMATICALLY OPERATED – PLATE SPRING CLAMPING

Description:

We manufacture spindle units for draw-back collets in various designs and with different clamping ranges.

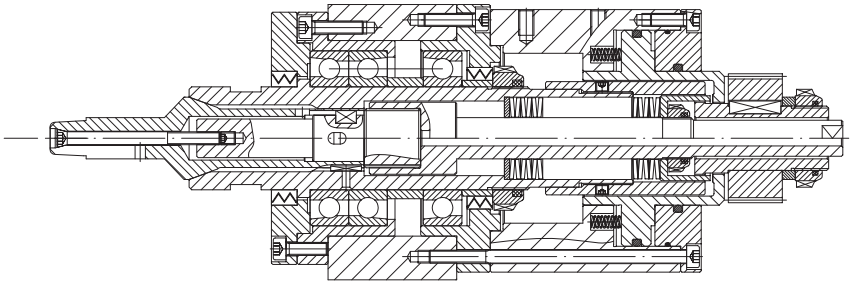
This spindle unit works with plate spring clamping. An expanding collet for the internal clamping of workpieces is integrated. The expanding collet is designed as a three-section draw-back collet. It is pulled into the fixture by plate springs and thereby closed. Unclamping takes place via an integrated single-acting piston. The spindle is located on three spindle bearings. Spindle drive takes place via a toothed belt. The collet itself is secured against distortion inside its housing.

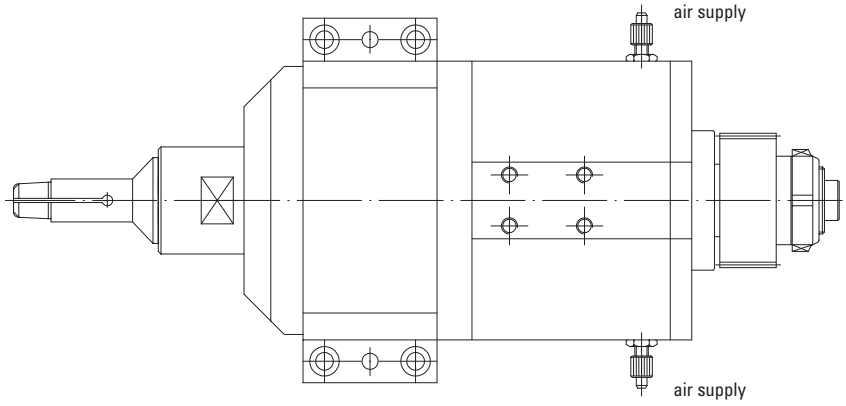
The motor is supplied by Nann or mounted by the customer.

Facts and figures:

- designed for draw-back collets as a three-section expanding collet
- clamping via plate springs
- mechanical unclamping
- clamping pressure 6 bar
- piston travel 3 mm
- max. 1200 rpm

Please don't hesitate to contact us. We will be glad to provide tailormade clamping devices for your requirements.





Notes

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